



North Valleys Water Management Subcommittee of the Reno City Council

Notice and Agenda of Regular Meeting

January 25, 2021

5:30pm

MEETING VIA TELECONFERENCE ONLY

Any person wishing to attend the virtual meeting may register for the meeting at

https://zoom.us/webinar/register/WN_dUkrKsyCQDiEdrOYbte4oQ

Naomi Duerr, Ward 2

Bonnie Weber, Ward 4

Devon Reese, At-Large

Public Notice: Pursuant to Section 1 of the Declaration of Emergency Directive 006 (“Directive 006”), the requirement contained in NRS 241.023(1)(b) that there be a physical location designated for meetings of public bodies where members of the public are permitted to attend and participate has been suspended. Moreover, pursuant to Section 3 of Directive 006, the requirements contained in NRS 241.020(4)(a) that public notice agendas be posted at physical locations within the State of Nevada has likewise been suspended. See, http://gov.nv.gov/uploadedFiles/govnewnv.gov/Content/News/Emergency_Orders/2020/DeclarationofEmergencyDirective006reOML.3-21-20.pdf

This agenda has been electronically posted in compliance with NRS 241.020(3) at <http://www.reno.gov>, and NRS 232.2175 at <https://notice.nv.gov/>. To obtain further documentation regarding posting, please contact Ashley D. Turney, City Clerk, 1 East First Street, Reno, NV 89501, (775) 334-2030; turneya@reno.gov.

Support Materials: Pursuant to Section 5 of Directive 006, the requirement contained in NRS 241.020(3)(c) that physical locations be available for the public to receive supporting material for public meetings has been suspended. Staff reports and supporting material for the meeting are available on the City’s website at <http://www.reno.gov>. Pursuant to NRS 241.020(6), supporting material is made available to the general public at the same time it is provided to the Subcommittee. For more information on support materials please contact Kerri Lanza, Engineering Manager at (775) 291-8316 or at lanzak@reno.gov

Order of Agenda: Items on the agenda may be taken out of order, may be combined with other items for consideration, may be removed, or may be delayed. Items scheduled for a specific time will not be heard before that time, but may be delayed.

Public Comment: No action may be taken on a matter raised under general public comment until the matter is included on a subsequent agenda as an action item. Public comment is limited to three minutes per person. Pursuant to Section 2 of Directive 006, members of the public may submit public comment by leaving a voicemail at (775) 393-4499. Messages received prior to 4:00 p.m. on the day before the meeting will be transcribed, provided to the North Valleys Water Management Subcommittee of the Reno City Council for review, and entered into the record. Public Comment may also be submitted by emailing: cityclerk@reno.gov. Public comment received during the meeting will be provided to the Subcommittee Members for review prior to adjournment, and entered into the record

Disruptive Conduct: Any person willfully disrupting the meeting may be removed from the meeting by the presiding officer for the remainder of the meeting. See NRS 241.030(4)(a). Examples of disruptive conduct include, without limitation, yelling, stamping of feet, whistles, applause, heckling, name calling, use of profanity, personal attacks, physical intimidation, threatening the use of physical force, assault, battery, or any other acts intended to impede the orderly conduct of the meeting or infringe on the rights of the commission members, city staff, or meeting participants.

AGENDA

1. **Call to Order** (For Possible Action)
2. **Roll Call** (For Possible Action)
3. **Public Comment on Agenda Items or Other Matters** – This item will be the public’s only opportunity to address items listed on this Agenda before the item is considered by the Committee. Public comment will not be taken when specific items are called. Public comments are not limited to Agenda items. Comment will be limited to three minutes per person.

4. **Approval of the Agenda** – January 25, 2021 (For Possible Action)
5. **Approval of Minutes** -- from the October 22, 2019 and November 4, 2019 and Meetings (For Possible Action)
6. Status of the Swan Lake Dewatering and Irrigation Project including Water Quality Monitoring (No Action Required)
7. Staff Report: 1999 Lemmon Valley Marsh and Playa Effluent Reuse Agreement (No Action Required)
8. Public Works Director's Report (No Action Required):
 - Lemmon Drive improvements with Regional Transportation Commission
 - The Reno Stead Water Reclamation Facility (RSWRF) Expansion Project schedule and milestones
 - The Reno Stead Water Reclamation Facility (RSWRF) flow shave to Truckee Meadows Water Reclamation Facility
 - Effluent Management Alternatives: Red Rock Reservoir, American Flats Indirect Potable Reuse Demonstration Site, potential delivery of effluent to Reno Sparks Indian Colony properties
 - The Reno Stead Water Reclamation Facility (RSWRF) Sewer Allocation Status
9. Identification of future agenda items.
10. Discussion and direction regarding setting the next meeting date. (For possible action)
11. **General Public Comment** – This Item is for either any General Public Comment or any Action Item Comment and is limited to no more than three minutes per person.
12. **Adjournment** (For Possible Action)

North Valleys Water Management Subcommittee of the Reno City Council

Notice and Agenda of Regular Meeting

Tuesday, October 22, 2019

5:30pm

Reno-Stead Airport, Stead Community Room

4895 Texas Ave. Reno, NV 89506

Naomi Duerr, Ward 2

Bonnie Weber, Ward 4

Devon Reese, At-Large



Posting: This agenda is posted at Reno City Hall – One East First Street, Washoe County Central Library – 301 South Center Street, Evelyn Mount Northeast Community Center – 1301 Valley Road, McKinley Arts and Culture Center – 925 Riverside Drive, Reno Municipal Court – One South Sierra Street, Washoe County Administration Building – 1001 East Ninth Street and Reno-Sparks Convention and Visitors Authority – 4001 South Virginia Street, Suite G; and further in compliance with NRS 241.020, this agenda has been posted on the official website for the City of Reno – www.reno.gov and per NRS 232.2175 and 241.020 a link to this agenda has been posted to <https://notice.nv.gov/>.

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Public Comment: Public comment, whether on action items or general public comment, is limited to no more than three minutes. The public may comment by submitting a Request to Speak form to the presiding officer. Public comment shall be presented to the body as a whole, and not to any member thereof. Speakers shall address questions through the presiding officer and shall avoid undue repetition of points previously presented.

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AGENDA

1. **Call to Order** (For Possible Action)

Call to order @ 5:34pm

This is the first meeting for the North Valleys Water Management Subcommittee of the Reno City Council.

2. **Roll Call** (For Possible Action)

Present are Council Member Duerr, Council Member Weber, Council Member Reese.
We do have a quorum.

3. **Public Comment on Agenda Items or Other Matters** – This item will be the public's only opportunity to address items listed on this Agenda before the item is considered by the Committee. Public comment will not be taken when specific items are called. Public comments are not limited to Agenda items. Comment will be limited to three minutes per person.

Council Members Duerr, Reese, and Weber: Each welcomed all who attended this inauguration, and gave gratitude of the formation of the committee; spoke on their motivation behind being part of the subcommittee, made comments on the general purpose behind the subcommittee; explained their concerns on current issues and future goals.

Council Member Weber expressed an interest in holding these meetings at City Hall so that the meetings could be live streamed and make them more accessible to the public.

John Flansberg: Gave opening comments on bringing updates that the County and City are working on in tandem and felt the importance to bring this forward for discussion and clarification of the intent of projects.

Members discuss the order of meetings and how they will be conducted; prioritizing topics according to public concern and special interest; the length of public comment; the likelihood that each item may not be addressed due to special interest and prioritizing according to public comment/concern.

City and County staff introduction:

Dwayne Smith, Washoe County; winterizing.

Arlo Stockham, City of Reno Community Development Director.

Bill Thomas, City of Reno Assistant City Manager.

Mike Mishell, Engineering Manager for Community Development.

John Shipman, Reno City Attorney's office, and here for support.

Kerri Lanza, Engineering Manager for Environmental Engineering Public Works

Ashley Turney, City Clerk.

Various introductions from the public:

Tim Fadda, Denise Ross, Danny Cleous, Pat Shea, Ray Lake, Victoria Munson, Tammy Holt-Still, George Still, Ed Hawkins, Tracy Hall, Dave Hall, John Krmptic, Diane Baranowski, Steve Schwang, Mark Miranda, Roy Johnson, Stacy Huggins

Tim Fadda: Lemon Valley has concerns with building crumbling; inspections on buildings and the overall amount of building in the North Valleys; requesting a moratorium on building until issues are addressed and resolved; we are lacking sewage and storm drains; in need of a new freeway because of repeated accidents.

Tammy Holt-Still: I am with the Lemon Valley Swan Lake Recovery Committee, and am concerned with communication; questions about Buck Lift Station and capacity limitation; concerned about water removal from all three locations, and cost. Requesting immediate change.

Ray Lake: Presented two studies called "High Plain States Ground Water Demonstration Program" on recharge and municipal water delivery conducted in December 1996; and, "Northern Nevada Indirect Potable Reusability Study" conducted in January 2017, pertaining to water being delivered to North Valleys, and the concern of flooding to continue without the removal of water. Before growth can continue these concerns must be addressed; and, I will leave these studies with you.

Denise Ross: Would like the City, County and Residents to begin to work together because decisions made by Council has an effect on Washoe County residents pertaining to boundaries; concerned with various projects in North Valleys including Wal-Mart sewer issues.

Danny Cleous: Stated concerns over underrepresentation for citizens; worried about runoff and pumping into Swan Lake; California developers following the instruction of the city.

Patrick Shea: Would like a County Commissioner to be added to this subcommittee; NRS reserved to the County and recommends a GID to assist in the issues that span over City and County borders; submission of the Legislative Counsel Bureau on pertinent statutes.

Council Member Duerr: Recommends that Council Member Devon Reese act as chair person for the purpose of directing this meeting.

Council Member Reese: Agreed to act as chair for this meeting. Suggests that if Legal believes that formalities are required for future meetings that this can be done at the next meeting.

Council Members discuss the flexibility of the moving around of items while being mindful of time and importance of each matter.

4. **Approval of the Agenda** – October 22, 2019 (For Possible Action)

Council Member Duerr motioned to approve the Agenda, Council Member Weber seconded, the motion carried unanimously.

AGENDA APPROVED

5. Staff Report: Update on the City Flood Control Inspection Program.

Mike Mishell from City of Reno flood development management provided an update on City Flood Control Inspection Program. I presented last month at the City Council Meeting and offered a formatted outline of future path in the inspection program and provided in the packet. There are 53 basins attributing to Swan Lake and all have been inventoried and categorized. There is a crude map available in the packet materials and show the retention, detention or combination of each. As the programs matures, the City will download this information into our mapping systems. There are another 35 basins under construction from new developments that are ongoing. Basins are built to mitigate damage from the increase of storm runoff caused by development. The vast majority of basins that need corrective work is minor in nature. This inspection program is meant to augment the existing programmatic requirements to the property owners of their obligations to maintain their basins, and owners have been notified, others will be notified, and I will follow up. I have provided code enforcement that we can rely on; I ask for leniency as the program is maturing and this is a work in progress.

Council Members Duerr asks for clarification of major and minor maintenance.

Mike Mishell: An inlet and outlet of the basins plugging due to garbage; a basin's inability to drain due to vegetation, natural sediment, and the importance of the removal for draining.

Council Member Duerr: Do we require reports with certifications from the owners that the work has been complete?

Mike Mishell: No. This is on the list for options in the future.

Council Member Reese: You will let Council know who the non-compliant owners are and you will be enforcing within all options?

Mike Mishell: Yes.

Council Member Weber: Please keep track of costs for this program, how many employees are involved and bring the update.

Public discusses the location of runoff and a 7-10 day hold of water not being sufficient based on evaporation.

Mike Mishell: Responds that If the water doesn't percolate or evaporate then it stays in the basin, and then that space is not available in the next storm and is a problem. Describes the difference between a detention and retention basin and a third basin category is a retarding basin that is designed to hold some water but releases water slowly. Not one basin is predominant, but a majority of basins today are retarding basins.

Council Member Duerr: Wants future item for a best practice or design on the kind of basin that will reduce the impact, and would like to hear more about retarding basins.

Ray Lake: Assumes that these 53 basins are all within city limits. Do these basin totals include county basins?

Mike Mishell: Did not include County because I do not have jurisdiction.

Danny Cleous: Retarding basins create more water volume in the basin that already has water in it; discusses current problem at Lemmon Drive as an example to an engineering flaw to handle volume.

Mike Mishell: Explains the 7-10-day design criteria.

Council Member Reese: Would like stormwater discussion on improvements to reappear on a future agenda

6. Staff Report: Update on the Storm Water Volumetric Mitigation Ratio of 1.3:1 for new development within the hydrological closed basin areas.

Mike Mishell: Presentation; compliance to Council's request to reduce the volumetric mitigation ration to 1:1.31; for new projects (Entitlement or BLD design standards) this means that for every 1 unit of increased runoff you're contributing 1.3 units of mitigation so that it does not go to Swan Lake; this will be formally codified in August 2020, but 1.31 will be the standard in the meantime.

Dwayne Smith discussed the County's changes as they are also requiring the reduction in ratio and that basins are made larger to account for mitigation to keep the volume in the basin rather than go elsewhere.

7. Staff Report: Update on the Swan Lake Dewater/Irrigation Project on American Flat property.

John Flansberg: Public Works Presentation and exhibit on the water pipeline for dewatering plans, the direction of flow, and times of year. Farming request for proposals (RFP) is now out for farmers, and three groups show an interest. With the interest from farmers, ideally, we are able to start some sort of an agricultural crop, otherwise it would be a sprinkling of water on that site from ground pivots. When this project was announced Wednesday, this project had a cap of three million, and this is 3.38 million; a meeting is set with the contractors' that proposed 3.32 million; results will be provided.

Overall discussion and updates regarding the size of the pipeline, when the pipeline will be built, when water pumping will begin and volume of water to be pumped. A request was made for alternative plans.

Tammy Holt-Still: This pipe is only used during the growing season? When will the pipe be built? Is purple pipe used and when would the water pumping begin?

John Flansberg: Yes; used during the growing season. The pipe will be built by April and typically used April to October; pumping follows irrigation like your yard with the seasonal change, and will begin pumping water in April.

Tammy Holt-Still: How will this reduce Swan Lake when the volume is doubled in the Winter season?

8. Presentation on Winter Preparedness Actions by Washoe County on Swan Lake and City of Reno on Silver Lake.

Presented by John Flansberg and Dwayne Smith

Dwayne Smith: The County has relied heavily on various barrier types to allow for safe roads and flood mitigation. Updates; Tiger Dams have been completed and are ready. The Hesco Barriers have a third-party reviewer to evaluate the status of the barriers on Monday the 28th. Road and utility crews are meeting next week, also on Monday. Some Hesco barriers are being moved in preparation for other uses; we are maintaining safety at elevation 4926 around the Lake; more Hesco barriers are ordered for the south end of the lake where Lemmon Drive connects; additional work is planned for the west side in front of Lemmon Valley School based on timing; there has been individual work on particular homeowner's properties on 9950 Lemmon Drive which is in alignment with the County Commissioner's directive to protect the residents and keep the roadway open; performing flood-pool management to create more opportunities for evaporation as part of a goal; the Lemmon Valley water treatment facility is ready for Winter making sure that all of the berms around the facility are intact as well as placed additional pumps and backup pumps and generator's should there be any issues. Residents are invited to tour, and the Nevada Division of Environmental Protection (NDEP), who is our regulator to tour the facility, and offer this to you as well if you are interested in touring the facility. Monthly water quality tests are conducted in regard to the water quality at Swan Lake and reports are available on the website. Because of the concern during an oncoming storm, cameras are

installed, and are in the process of installing a story board which is a board located on the lake that shows previous years water levels and current level where these levels are reported on the website for the public to see in real-time. The barriers are being monitoring as well as earthen barriers, and leakage is not a sign of failure; communication in the past has not been good, but have changed that; The Perkins Group has been brought in, who is here for both the City of Reno and Washoe County as well as the partners in the health district and school district and all stakeholders involved, to better our communication. Feedback is appreciated, so if there are challenges or issues call 311 or email Washoe 311 and a phone call or an email will be returned once the issue has been resolved.

Tammy Holt-Still: Has requested certified copies of the testing levels and has not received those.

Denise Ross: Questions the types of chemicals and medications tested at the sewer treatment plant including, e-coli and basic chemicals, hormones, birth control, other medications and arsenic.

Dwayne Smith: Test results can be found on our website and arsenic is one of those values that fluctuates.

John Flansberg presented on City of Reno efforts. Discussed the water levels and fluctuation at Silver Lake, including the additional Hesco Barriers around the lake; states that there is no pumping from Silver Lake to Swan Lake and these two Lake's mirrors each other closely regarding lake levels, annual precipitation and evaporation. Compared and contrasted 2017 to 2018 and 2019.

George Still: Questioned why the water is not being removed from the ponds into the river? What would that look like if the Lakes were to be pumped, where the water could be moved and the drainage.

John Flansberg: Explained that it would look different based on the location and issues with logistics.

Tim Fadda: The county has been using pumps for years; a storm drain system is needed that pumps non-effluent water into the creeks that go into the Truckee River. The same could be done with Swan Lake if the effluent was removed and discontinued pumping the State's sewage into the lake; other locations as well.

9. Staff Report: Update on Reno Stead Water Reclamation Facility (RSWRF) Flow Shave Project.

John Flansberg: Presented on the taking of raw sewage that comes into the plant, and via pipeline that diverts a portion of raw sewage into a vault that redirects the sludge downhill to multiple locations.

Council Member Reese: Because of time we will jump to item number 15.

10. Staff Report: Update on Buck Drive Sewer Flow Redirect from Lemmon Valley Water Reclamation Facility (LVWRF) to Truckee Meadows Water Reclamation Facility (TMWRF) Project.

John Flansberg: Presented that general updates and discussion further details will be coming to Council.

11. Staff Report: Update on Current Reno Stead Water Reclamation Facility (RSWRF) Sewer Allocation Program.

12. Presentation on the Reno Stead Water Reclamation Facility (RSWRF) Expansion Project including schedule and milestones.

13. Update on the Joint Washoe County and City of Reno evaluation study on benefits of consolidation of North Valleys regional wastewater utility operations to include Cold Springs Water Reclamation Facility, Reno Stead Water Reclamation Facility, and Lemmon Valley Water Reclamation Facility sewer sheds.

14. Identification of future agenda items.

15. Discussion and direction regarding setting the next meeting date as November 4, 2019 (For possible action)

Council Member Duerr: Suggests to keep these meetings in the North Valleys but would like them to be filmed and streamed live.

Council Member Weber: Suggests the City Hall location as more people can attend, but more difficult for staff in traffic and too far.

Denise Ross: Issues of Swan Lake are being addressed and residents want meetings to be in the location that is easier for residents.

Council Member Reese: How many would like to see this meeting held here at this location on November 4? (approximately 10 residents raised their hands)

The next meeting will be held here but that may change in the future depending on the availability of this room.

Victoria Edmondson: Can the location be rotated?

Council Member Reese: Yes, but if we do that it may not have a large attendance.

Council Member Duerr motioned to have next meeting on 11/4 at 5:30 with live streaming if possible, in North Valleys, Council Member Weber seconded, motion carries unanimously.

16. **General Public Comment** – This Item is for either any General Public Comment or any Action Item Comment and is limited to no more than three minutes per person.

Council Member Weber: Questioned on what the plan and purpose of this board?

Council Member Duerr: That this board could vet ideas to council at this meeting, similar to other subcommittee meetings and make recommendations

Weber: Would like to avoid duplication of these items as many are coming to council and many of these residents come to council as well. Gained from these meetings is direction, and will progress according to purpose and importance making better policy choices while each topic will be narrowed as they are completed. The goal is to provide support to staff and figure out ways of our larger group of colleagues to be carried out.

Council Member Reese: Agreed. Purpose will be found as each topic is addressed; additionally, staff opinion is to be sought.

Tim Fadda: Request to fix the infrastructure, instill a moratorium until current issues are fixed, install a storm water system that pumps stormwater into the Truckee River by way of natural runoff, and an expansion of the sewer plant.

Tammy Holt-Still: Duplication is not the point of this meeting, but to fix everyone's issues and not just for developers and warehouses, but also for residents; this requires the county, city and citizens to work together in unity. I agree with Tim in that we need a relief valve for these Lakes to the River; Pyramid Lake's natural rim has not been reached in forty years.

Council Member Weber: I would like to add that it includes our Federal and State partners as well as our private partners; many more people are vested in this and are in conversation with these entities.

Danny Cleous: Residents here have trust issues and have reservations about Public Works due to court discussions; wants residents added to the board; various options in the Quadknoff Report to review.

Denise Ross: In hope that this meeting would result in questions being asked and community bridging communications, understanding and trust. Asks questions to council regarding the flow shave project and the reuse of water.

Council Members Duerr and Council Member Weber responds to comments and questions, and explains the decision made on the Flow Shave Project

17. **Adjournment** (For Possible Action)

Council Member Weber moved to adjourn; seconded by Council Member Duerr; motion carries unanimously.

ADJOURNED @ 7:32pm

North Valleys Water Management Subcommittee of the Reno City Council

Notice and Agenda of Regular Meeting

Monday November 4, 2019

5:30pm

Reno-Stead Airport, Stead Community Room

4895 Texas Ave. Reno, NV 89506

Naomi Duerr, Ward 2

Bonnie Weber, Ward 4

Devon Reese, At-Large



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AGENDA

1. **Call to Order** (For Possible Action)

Clerk Turney called the meeting to order at 5:52 p.m.

2. **Roll Call** (For Possible Action)

Present are Council Member Duerr, Council Member Weber, Council Member Reese.

We do have a quorum.

Council Member Reese to serve as temporary Chair for this meeting.

Also present are John Flansberg, Ashley Turney, Karl Hall, Mike Michell, Joe Coudriet, Kerri Lanza.

3. **Public Comment on Agenda Items or Other Matters** – This item will be the public's only opportunity to address items listed on this Agenda before the item is considered by the Committee. Public comment will not be taken when specific items are called. Public comments are not limited to Agenda items. Comment will be limited to three minutes per person.

Tammy Holt-Still asked that the City of Reno understand the issue of development vs the size of Swan Lake vs the effluent with density and storm water runoff/management; the differences in open land between evaporation, saturation and the type of saturation vs (inaudible 2:18) development; runoff quantity of one home per acre versus four homes per acre versus eight homes to an acre and there being 65% increase from high density per one acre in storm water runoff. Swan Lake is 1,800 acres, and stated at the trial there was 3,000 acres of permeable ground for the City of Reno and Washoe County going into Swan Lake in the high-density areas; 3,000 * 65% of stormwater runoff and is a lot of stormwater runoff for one lake.

Councilmember Duerr requested all those present introduce themselves: Denise Ross, Danny Cleous, Mike Mischell, Carl Hall, Tammy Holt-Still, John Hester, Victoria Edmonson, Joe Coudriet, Kerri Lanza, David Bracher, Bob Lisner, John Foley, Patty Lopez, Ray Lake, Donna Robinson, Russ Earle, Ed Hawkins, Stacie Huggins, Dave Snellgrove, Tracy Hall, (inaudible name), Jeanne Herman, Dave Hall, Tom Fadda, Pam Becker, Kacey Meadon, George Still.

Tim Fadda expressed concern of the sewer system, floodwater runoff and a means to remove the water from the Valley; requesting a moratorium on building until a storm drain system is enacted and problems can be solved, that includes the infrastructure be fixed making it easier to come and go to the valley.

Russ Earle expressed concern with effluent water being discharged as amount is beyond capacity; requesting all water to be upgraded to A+ water so it can be sold as a commodity, not cheap, but as it takes so much time we need to begin now, stop the import of water, decrease the issues in Swan Lake, Silver Lake and Cold Springs; doesn't believe that Hesco barriers fix the problem.

4. **Approval of the Agenda – November 4, 2019 (For Possible Action)**

It was moved by Council Member Weber and seconded by Member Duerr to approve the Agenda from the November 4, 2019 meeting. The motion carried unanimously by ALL members present.

AGENDA APPROVED

5. **Election of Chair (For Possible Action)**

Council Member Duerr motioned to appoint Council Member Reese for Chair, seconded by Council Member Weber. The motion carried unanimously by ALL members present.

Council Member Reese appointed as Chair.

6. **Staff Report: Update on Reno Stead Water Reclamation Facility (RSWRF) Flow Shave Project.**

John Flansberg gave a presentation on the action that the city has taken regarding the flow shave at the Reno Stead plant; gave the history of the original North Virginia Interceptor line size having extra capacity which allowed for the expected growth and that at the previous expansion, the sludge was not treated as there were drying beds that left offensive odors. Explained the benefit of a force main, headworks, piping into the vault and the ability to pump more than three hours per day, as well as the 500,000-gallon capacity for the flow shave. Explained that there is very little that will be moved out during the summer as it is used for irrigation but winter amounts will be documented for pumping, but that there are some limitations on the capacity pumped through the force main line at the north Virginia interceptor as it is a good size and a long distance.

Council Member Duerr asked Mr. Flansberg to keep two lines in future presentations, red and blue, for projected versus actual.

John Flansberg: Agreed and for comparison purposes an example was provided of Q&D working on paving where there was a sewage leak during the process, which had been resolved and mitigated by a temporary shutdown of the flow shave for precaution's sake.

Council Member Duerr asked for clarification regarding the charts provided of the gallons of water volumes from monthly versus cumulative that spanned multiple years, and requested charts for monthly instead of cumulative and overall pumping including irrigation; additional clarification was made to all that it was reported during the last

meeting, originally the flow shave project, a diversion project, was designed to allow for growth because the plant was out of capacity. The council asked to repurpose this project and requested this be used to reduce the level of Swan Lake and only 15% was allowed for projects that had already applied and approved; it was designed for one thing and repurposed once the problem was understood.

John Flansberg clarified the flow shave and its capacity, explaining the differences in the capacity for growth and when the toilets flush; 12-18 months later as part of the allocation calculation.

Chair Reese opens the time for questions.

Denise Ross asks for the current capacity of the sewer treatment plant today; additionally, states that Truckee Meadows Water Reclamation Facility was at 85% capacity as of January 2019 and asks for the current capacity, and how population growth is accounted for.

John Flansberg stated that generally, Reno Stead Water Reclamation Facility current flow to the plant is 1.75-1.8M gallons, the actual amount allocated is 1.97M gallons; Truckee Meadows Water Reclamation Facility has in excess of 3 million gallons remaining of 23 million to allocate and may increase with treatment options; Reno's shared portion is 23.33 million capacity and Sparks has the remainder. In regard to the second question: Hydraulically the plant can push 45 million gallons per day. Because of nutrient loading, a limiting factor is how much nitrogen can be released into the river; at 425 pounds of nitrogen out of the 500-pound average, we are at 85% capacity and a key number when planning and looking at additional growth. Other methods discussed which include a facility plan which will be ready in the Spring and working on improving the options. From a nutrient standpoint TMWRF is at 85%. Regarding population growth, calculations used while looking at previous years is discussed which only accounts for the divert quantity not the amount coming in and does not include a growth factor.

Tammy Holt-Still reiterates the cumulative amount ranges, expresses concerns with staff approving projects to connect to RSWRF and asks where the growth will go.

John Flansberg discusses the allocation of projects and redirect of sewage in regard to flow shave

Tammy Holt-Still requests to see numbers as these projects are being approved and requesting layman's terms for these projects and numbers that residents can understand.

Council Member Reese agreed and would also like to see this information, and want residents to understand it as well; aware there are multiple entities and many plants and diversions and shave numbers; expressed his personal method of trying to understand the information provided in the charts; aware that capacity is looming and some changes have been made and continue to be made.

Bob Lisner states that as the developer of the recent 1,800 home-building project approved by the county, the commitment is to not increase the levels of either lake. States that during the summer months there is not enough effluent to fill the flow shave; two-part question, "why not pump out of the lake and keep that going full speed from RSWRF over to TMWRF"; and, "selling lake water to effluent customers and continue the pipe-flow of effluent?"

John Flansberg stated that the issue is nutrient components and is not feasible for that (silt and water quality for example) phosphorous and nitrogen and totally dissolved solids prevent that. Discusses the content and other limiting factors; regarding the second question: filtration and the effluent is very high-quality water but silts can block irrigation causing problems for golf courses and parks when irrigation heads are blocked from silts.

Russ Earle: Regarding the previous comments, asks if they are ok dumping this on American Flat and impacting domestic wells. Secondary question, how often is checking of bacteria load in Silver Knolls, and will we receive the information and which labs are they going to?

John Flansberg answered that it is not fine nitrate but TDS (total dissolved solvents), not full nitrogen but silt is the issue; testing of the water is continuous to maintain quality of water while not trying to over water or flood irrigate as sensors will be installed to prevent over saturation into the water table below.

Suggests having conversations about testing protocol; are working with TMWA and do not want to have issues with the water as other uses can be had with quality water.

Council Member Reese construes that testing is at the lake, and at the site, and a 3rd party certified lab will be used and John Flansberg stood in agreement with explanation.

Tim Fadda states that the plant has capacity of 2 million gallons per day. He asks, "at what point its maximum is reached, when does that happen and how do we stop projects?" Additionally, he states that there has to be a stopping place.

John Flansberg explains that there are 30k gallons left available, plus 75k from flow shave and the remaining capacity is first come first serve.

Council Member Reese interceded, explaining that council was not interested in a moratorium, however, there is a natural one happening as when capacity is reached, no one else is accepted; he wants the public to be aware that developers also have rights; explains that he has been chiefly concerned with residents as well, which is why this subcommittee was created.

Discussions continues with public regarding a natural moratorium and approved developments; the confusion of numbers on the charts and that council and residents need something easier to understand, and council agrees and is committed to improving.

Ray Lake asks if during the summer there is zero discharge into Swan Lake.

John Flansberg replied that there is very little, tens of thousands at most; and many days it is zero; however, a storm could mean more.

Denise Ross asks how many gallons per day are going into swan lake.

John Flansberg explains that the average flow can be around 1.6-1.7M gallons, and are available for public record; as discharge reports are created, they are submitted to the Nevada State Department of Environmental Protection.

Tammy Holt-Still states that the discharge numbers of the monthly averages are inaccurate and slighted and wants to see daily numbers.

John Flansberg is offended by the insinuation.

Bob Lisner replies to Miss Holt-Still and summarizes the flow shave and the intention of the original design for 3000 more homes, and that council reduced this to 400 homes and the remaining goes to reduce the lake and so the Council has helped.

7. Staff Report: Update on Current Reno Stead Water Reclamation Facility (RSWRF) Sewer Allocation Program.

Council Member Reese and Council Member Weber discuss the need to support staff and acknowledge how hard they work and have worked on solutions, and affirmed that conversations will not be had that are counterproductive with regards to accusations and finger-pointing.

John Flansberg provided an update on the Reno/Stead remaining gallon allocation. He gave examples of previous year projects that were tallied and set aside, took the flow that was coming into the plant and added those together as part of the 2 million gallons per day and discussed the allocation being decided at the end based on phases for number of homes. Historically from the 1970-1980's, on average each home needs 175 gallons per day for sewer capacity and is how sewer capacity at the plant is determined; although those numbers are less today. An example of new development arrival and sewer capacity allocated in conjunction with the number of units and the equivalence of a warehouse being compared to ten single-family or multi-family homes; and, provided a list of incoming projects and prospective sewer usage.

Council Member Duerr commented that not all in attendance have the information currently being discussed from the memo, and has already been posted at Reno.gov/meetings, today's date, and can be pulled up by phone, and passed around a sheet with this information for the purpose of taking a picture with their phone.

Reiterated her understanding of the total committed flow from the last page as 1.97 total committed flow, and 1.5% away, not including the flow shave allocated, and 95% committed of all of the plant and the flow shave, so there is only 5% capacity left. Asked for clarification of a will-serve letter, and stated that council's past decision to require payment up front, in comparison to reserving a hotel room, was because they wanted to know how real versus how speculative each project is.

John Flansberg explains that when a new project comes in for a final map, after all of the pertinent of a project are in place regarding engineering, roads, how many houses etc., then sewer capacity is purchased per unit, and after the purchase they receive a will-serve letter. Each who are on the list has received a will-serve and entitled to sewer service because they have paid. For statistical purposes, slightly more than 64% are single family, almost 34% are multi-family, 1.7% is for commercial and industrial.

Council Member Reese expressed concern over projects that are around, but not in and are not coming forward.

Tammy Holt-Still made a statement regarding the statistical 175 gallon per household is too low, based on federal numbers show 120 gallons per bedroom and 70 gallons per person. Requested clarification.

John Flansberg explained that a study was completed with TMWA customers and developments and the actual numbers showed 152 but it was decided to use 175 to be conservative; described collection line factors, meaning the size of the pipe based on parameters of use, and explained what happens at the treatment plant; gave an example of ground water coming out of manhole covers in 2017.

Danny Cleous stated concern that if sewer capacity is at 95% and there is another wet winter, the infiltration will cause issues as in the past, the sewer plant will be at a stand-still and all of it will go to the lake. As discussed during the trial, there is not enough equipment to measure the discharge into the lake, a high flow cannot be measured because it billows over.

John Flansberg reminded that the NDEP permit review will require a retrofit and a measuring device so that the increased capacity will be shown and discusses the increased flow with members as well as the flow shave in regard to the wet season; reiterates that the 2017 permit was not violated in regards to overall discharge, average discharge.

Council Member Weber asks Joe Coudriet to speak on the actual incoming of water.

Joe Coudriet explains that the actual water incoming from a new development is tracked monthly, is measured at the plant and monitored in the collection system; whereas, (inaudible name) is responsible for true-up after a lapse of 6 months, as numbers are not true prior to a lapse in time of tracking. The city knows what it is permanent versus any amount that is infiltrating, due to leakage into the system, and has been accounted for when it is true-up. Additionally, he explains with a real-time diagram being drawn for in-depth understanding for all who are present, how the city knows that wet-weather events are accounted for with an explanation that the plants monthly maximum is about 2 MGD (million gallons/day) permitted, and on any single day we cannot exceed 2.35 MGD, and a maximum daily flow is 4.13 MGD permitted.

John Flansberg answers questions regarding how Buck drive is accounted for regarding the previous explanation stating that the line was not in place to carry it to Truckee Meadows Water Reclamation Facility or Reno Stead Water Reclamation Facility, but that Washoe County had a line in service that went to the Lemon Valley plant until the Buck Drive line was completed; and explained the agreement on the Swan Lake conservation amount being 490 acre feet.

Council Member Reese added that the original agreement was 493-acre feet during the dry months, and was not all-year-round; this agreement expired two years ago.

Council Member Weber asked to have the agreement added so that it is seen and how it is dealt with.

Russ Earle questions the capacity of Cold Springs plant, and who owns what portion and states that Stonegate was approved for 4200 homes, and at 175 gallons per home that is equivalent to 735,000 gallons per day, and asked for the percentage that Cold Springs is at today.

John Flansberg explains that the county owns all of the Cold Springs plant and that there is an agreement with Washoe County and the Stonegate development that Washoe County will service their sewer needs; that the plant will have to expand to service Cold Springs and Washoe County has provided information regarding their plans.

8. Presentation on the Reno Stead Water Reclamation Facility (RSWRF) Expansion Project including schedule and milestones.

Joe Coudriet provided an update slide presentation with visuals on Reno Stead Water Reclamation Facility dates, and status of bonding, and the estimated operation date, stating that the design will increase treatment capacity from 2 MGD to 4 MGD; the flow shave is not the current direction of the City Council; awaiting approval of an expansion; will take direction from Sub-committee Council Members on effluent management. Provides infographics on current capacity and future expanded capacity; construction estimate of \$55 million, that City Council is working on being funded largely through NDEP (home state revolving home fund program), which is a program that the city will issue bonds that the state will buy back to reduce the rate making the project less expensive. Should the project stay on track, advertising for bid proposals will begin in January 2020 and the contractor will be selected after the money is made available for contract, where construction is estimated to begin April 2020 with a 24-month construction window, followed by commissioning for three months and fully operational in July 2022.

Council Member Weber stated discomfort in voting for the bonds and moving forward with this project unless certain criteria were met:

- 1) A number of these meetings were had where there was a group understanding of where we are;
- 2) During these meetings we have looked at options in addition to the options that were already started regarding the flow shave and the Swan Lake dewatering project; and,
- 3) That we knew where the effluent was going to go.

It was asked where they thought the effluent was going to go; at what level of quality the new water would be treated; and what the plan/thought is with regard to injection. She asked for a more in-depth explanation when revisiting the reservoir project, as well as to have someone come in and talk about what is planned regarding the American Flat Sprinkling Project and Bedell Flat as an agenda item.

John Flansberg explains that discussions were had about expanded re-use, injection and reservoir. One of the things that would work out nice for the American Flat Site is taking the water up there for agricultural use, reducing the level of Swan Lake to make room for wet winters and as far as the storage reservoir item, this should be brought back as an agenda item. The water going to the reservoir would continue to be Class A, and the injected water would be A+. Regarding the injection, currently there is a 9-month pilot project at the Reno Stead Water Treatment Plant of an advanced filtration process, using advanced water treatment, doing the testing, monitoring, doing some injection and pulling it back out, doing more testing, and one month into the project.

Council Members discuss additional effluent into Swan Lake, treatment, additional will-serve, effluent exported from the Tahoe Basin and other areas as evidence of the ability to export.

Tim Fadda requested the depth of the reinjection well and the current level of the injection well as well as the static level in the pipe?

Joe Coudriet believes the reinjection well is around 400 ft, a pilot test only but can bring it back with more details which include the PSI (pounds per square inch).

Council Member Reese stated that this is a future agenda item.

9. Update on the Joint Washoe County and City of Reno evaluation study on benefits of consolidation of North Valleys regional wastewater utility operations to include Cold Springs Water Reclamation Facility, Reno Stead Water Reclamation Facility, and Lemmon Valley Water Reclamation Facility sewer sheds.

This is an informational item primarily for sub-committee members, and to inform the public that a request was made from Washoe County commissioners, City Council members regarding the North Valleys. There is the thought of decommissioning the Lemon Valley plant and combining with Reno/Stead, and factor in the Cold Springs plant for the purpose of a single management of the North Valleys sewer utilities, and the City Council is making an agenda item to look into consolidation of the North Valleys utility. Washoe County and the City of Reno are looking into a joint facility for the Reno/Stead and Lemon Valley area, and there are some recommendations that will be made in the future, where a study has been underway for at least a year and will be concluding within the next sixty to ninety days.

Sub-committee members expressed the same interest in consolidation and discuss Lemon Valley cells, evaporation, and it being an older facility that may need to be phased out; there needs to be a parallel of meetings regarding City Council, Washoe County and the Sub-committee where intersection happens regarding the various discussion of ideas.

10. Identification of future agenda items.

Council Member Reese stated that multiple future agenda items have been given throughout the meeting.

11. Discussion and direction regarding setting the next meeting date. (For possible action)

Future meeting for discussion on December 9 being the possible next meeting day; also look at January 6 and January 13 for possible dates; voting is on January 22nd and information and a discussion is needed prior to voting. The goal for the location is at the current location but depends on its availability; however, IT issues must be resolved.

12. General Public Comment – This Item is for either any General Public Comment or any Action Item Comment and is limited to no more than three minutes per person.

Danny Cleous stated his concern that storm water runoff is a bigger issue than sewer as 2017 demonstrated, coming from the south to the north, more went into the system than was allowed shutting down Lemmon Drive for three days, and according to testimony where there was an estimated, over 7 million gallons a day, going through the sewer plant for three months which is over 4.13 and estimated only because there was no way to track it. Believes that stormwater needs to be discussed where engineering and retention ponds are not going to fix it.

Tammy Holt-Still commented on the last item of the upgraded 4-MGD, based upon the current Lemmon Valley and Will-Serves, it will not be enough capacity as building continues; concerned about storm water issues and issues need to be handled beyond sewer; unaware of the size of Silver Lake, but aware of the size of Swan Lake not evaporating fast enough; a circular problem of issues need to be addressed, not just sewer issues.

Bob Lisner requested that a chart be fixed to show 2.1 where it states 2.5; used the chart to course the yearly flow into Swan Lake stating that there is no discharge going into swan lake in the summer as it going to irrigation. The flow shave being removed, and pumping to American flat, there will be a deficit to the lake which leads to an overall decreased amount

Denise Ross pointed out that where there is an increase in warehouses and houses, there is an increase water from outside sources, and an increase in irrigation, all which goes into the lake. Concerned with runoff not just sewer.

Council Member Duerr: DRI is supposed to be doing a water balance study, all the water coming in and all of the water going out, and would like to see an update on that study as a future agenda item; believes that knowing this is key to solving the problem.

Council Member Weber thanked the public for all of their input as the information and discussions provided help to enable problem solving decisions.

13. Adjournment (For Possible Action)

It was moved by Council Member Weber to adjourn and seconded by Council Member Duerr. The motion carried unanimously by ALL members present.

ADJOURNED at (7:52pm ?)

STAFF REPORT

Date: January 25, 2021

To: North Valleys Water Management Subcommittee

Thru: Doug Thornley, City Manager

Subject: Staff Report: Swan Lake Water Quality Monitoring for American Flats Irrigation/Farming Project

From: Kerri Lanza, P.E., Engineering Manager

This report provides water quality data acquired during the Swan Lake dewatering / farming / irrigation project. The purpose of the water quality monitoring is to assist understanding of water quality applied to the land surface. A tabulated monitoring report is attached for the reader's reference.

The system was operational from late March 2020 to late October 2020. Soil moisture probes were placed on the site such that the target for subsurface wetting was to a depth of not more than 10 feet deep. With the groundwater table understood to be more than 100 feet deep, the irrigation of Swan Lake water did not reach groundwater.

At the start of the project, a water quality-sampling plan was developed and followed. A water quality-sampling plan outlines frequency of sampling, locations, and analytes. To summarize, water samples were taken at various intervals during the project at the inlet (Jean Way), and/or at the pivot sample port (irrigation site) for indicator bacteria, general chemistry, and metals. Monitoring included weekly sampling for the first month after activation of the irrigation system, followed by bi-weekly sampling for one month, and monthly thereafter¹.

It remains our intent that state recommended beneficial standards for irrigation² are met; however, the lake water is not drinking water quality. Some constituents do not have a water quality standard for irrigation beneficial use, in these cases the most prevalent beneficial use standard for regional waterways were referenced. Any exceedances of these standards do not indicate that any violation or a regulation or statute has occurred, since the project is not discharging to, or affecting any surface water and there is no applicable discharge permit. However, exceedances may indicate that the water from Swan Lake could be detrimental to the crop and crop yields, and/or eventually groundwater mingling. In the instance of E. coli, the standard for human contact is utilized.

¹ City's sampling efforts were coordinated efforts with Washoe County. Washoe County results can be found at <https://www.washoecounty.us/lemmon-valley/water-quality.php>

² Nevada Administrative Code (NAC) 445A contains standards for toxic materials applicable to designated waters (irrigation), most prevalent beneficial use standard for contact, for numerous regions, and most prevalent beneficial use standard for irrigation, for numerous regions

The data presented suggest that there are no concerns regarding bacteria (E. coli, fecal coliform) for this use, and that there is no additional growth of bacteria beyond the pump inlet site when going through the distribution piping. Some metals show sporadic exceedances (iron, manganese, and zinc). However, these are occurring at the pivot sample site, with concentrations being significantly higher than at the Jean sample location on the same sample dates. This suggests that the metals may come from components of the pump and irrigation pivots, or the distribution piping. The metals detected can be found in various metal alloys.

The concentrations of Total Dissolved Solids (TDS) show an increasing trend over time, coinciding with the receding water levels in Swan Lake. The TDS concentrations were initially around 900 milligrams per liter (mg/L), but increased to around 1,000 mg/L or above in most samples starting with the May 23rd, 2020 sample. Concentrations generally continued to increase, to a maximum of 1,500 mg/L at the Jean site in the October 5, 2020 sample. The elevated TDS may have detrimental effects on long-term farming activities. When lake levels are too low to supply the farming operation, or water quality is insufficient for long-term irrigation, the City potentially seeks a TMWA treated water source.

Swan Lake Water Quality

iEAN sample				City of Reno and Washoe County Sample Data - JEAN (surface water) and pivot sample locations																											
Parameter	Unit	RL (NOT ALWAYS THE SAME)	Standard ⁽¹⁾	10/30/2019 JEAN	3-25-20 JEAN	3-25-20 PIVOT	4-1-20 JEAN	4-1-20 PIVOT	4-7-20 JEAN	4-7-20 PIVOT	4-15-20 JEAN	4-15-20 PIVOT	4-30-20 JEAN	4-30-20 PIVOT	5-15-20 JEAN	5-15-20 PIVOT	5-28-20 JEAN	5-28-20 PIVOT	6-25-20 JEAN	6-25-20 PIVOT	7-23-20 JEAN	7-23-20 PIVOT	8-18-20 JEAN	8-18-20 PIVOT	10-5-20 JEAN	10-5-20 PIVOT					
Indicator Bacteria																															
Total Coliform	MPN/200ml	1		>1600	>23	>49	13	7.8	2.0*	23*	17 (H)	130 (H)	350	4.5	15.0	64.6	>2419.6	111.2	>2419.6	791.5	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6			
Escherichia Coli	MPN/100ml	1	410 ⁽²⁾	49	23	49	<1.8	<1.8	23	23	4.5 (H)	49 (H)	170	2.0	<2.0 (D)	2.0	360.9	2.0	38.9	4.1	52.9	6.3	114.5	<1.0	40.4	6.3					
Fecal Coliform	MPN/200ml		1000 ⁽³⁾	49	23	49			49	33	4.5 (H)	49 (H)	170	2.0	<2.0 (D)	<2.0 (D)	397.3	3.1	71.4	5.2	52.8	13.2	118.7	<1.0	27.2	10.8					
General Chemistry																															
Total Nitrogen	mg/L	0.82 (2.0)	-	<2.0	2.29	1.9	2.4	3.1	2.1	2.0	<2.0	<2.0	<2.0	<2.0	2.2	2.4	2.5	2.2	1.9	2.1	2.0	2.9	3.0	3.8	3.0	3.0					
Nitrite	mg/L			<0.5	<0.25	<0.25	0.24 (J)	0.28	<0.25	<0.25	<0.50	<0.5	<0.50	<0.5	<0.06	0.11	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)	<0.30 (D)		
Nitrate	mg/L			<0.5	0.29	<0.25	0.22 (J)	0.26	0.29	0.28	<0.50	<0.5	<0.50	<0.5	<0.15	<0.15	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)	<0.75 (D)		
TKN	mg/L			1.3	2	1.9	2.0	2.6	2.1	2.0	1.9	1.9	1.6	1.5	2.2	2.2	2.5	2.2	1.8	2	1.9	2.8	2.9	3.8	3.0	3.0					
Total Phosphorus	mg/L	0.02	-	0.79	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.5	1.4	0.73	0.50	0.64	1.5 (SC)	1.7	0.81	2.7	0.44	0.5	0.76	0.7					
Total Suspended Solids	mg/L	10	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
Total Dissolved Solids	mg/L	25	1000 ⁽⁴⁾	810	920	920	920	900	890	890	880	860	860	890	920	920	1000	1000	1000	970	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	
Fluoride	mg/L		1	ND	0.26	0.27	0.31	0.31	0.44	0.45	0.3	0.29	0.3	0.31	<0.30	0.47	<1.0 (D,U)	<1.0 (D,U)	<1.5 (D)	<1.5 (D)	<0.60 (D)	<0.60 (D)	<1.5 (D)	<1.5 (D)	<1.5 (D)	<1.5 (D)	<1.5 (D)	<1.5 (D)	<1.5 (D)		
Metals																															
Arsenic	mg/L	0.005	0.1	0.032	0.033	0.044	0.036	0.035	0.034	0.034	0.036	0.028	0.038	0.013	0.039	0.040	0.040	0.039	0.045	0.046	0.056	0.075	0.070	0.075	0.080	0.080					
Beryllium	mg/L	0.002	0.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.28	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Boron	mg/L	0.1	0.35	0.36	0.44	0.36	0.36	0.38	0.37	0.34	1.4	0.45	0.40	0.40	0.42	0.44	0.42	0.48	0.48	0.60	0.53	0.69	0.64	0.73	0.71						
Cadmium	mg/L	0.002	0.01	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Chromium	mg/L	0.01	0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Copper	mg/L	0.02	0.2	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	
Iron	mg/L	0.3	5	0.75	1.7	6.4	1.1	1.4	1.3	0.67	1.7	1.5	1.4	0.80	2.9 (M)	4.7	3.3	3.0	0.83	1.0	1.1	32	2.2	29 (SC)	4.2	6.9 (SC)					
Lead	mg/L	0.005	0.1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Manganese	mg/L	0.005	0.2	0.083	0.089	0.25	0.072	0.059	0.051	0.046	0.037	0.03	0.19	0.033	0.086	0.17	0.19	0.095	0.068	0.066	0.053	1.2	0.10	1.9	0.14	6.23					
Nickel	mg/L	0.01	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Selenium	mg/L	0.005	0.02	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Zinc	mg/L	0.1	2	<0.10	0.40	<0.10	1.5	<0.10	<0.10	<0.10	5.4	<0.10	1.4	<0.020	0.46	0.021	0.050	<0.02	0.62	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	

(1) Nevada Administrative Code 445A.1236- Standards for toxic materials applicable to designated waters (irrigation). Unless otherwise noted
(2) Nevada Administrative Code 445A- Most prevalent beneficial use standard for contact, for numerous regions
(3) Nevada Administrative Code 445A- Most prevalent beneficial use standard for irrigation for numerous regions
* = Undetermined lab error, Total Coliform value should be higher
RL = Laboratory Reporting Limit
ND = Not Detected Above Laboratory Reporting Limit
NA = Not Analyzed
(D) = Due to the sample matrix, dilution was required in order to properly detect and report the analyte. The reporting limit has been adjusted accordingly.
(H) = Sample received out of hold (error by primary laboratory)
(J) = Estimated value, below laboratory reporting limit.
(M) = The matrix spike/matrix spike duplicate (MS/MSD) values for the analysis of this parameter were outside acceptance criteria due to probable matrix interference. The reported result should be considered an estimate.
(U) = The analyte was analyzed for, but was not detected above the level of the reported sample reporting/quantitation limit. The reported result should be considered an estimate.
(SC) = Spike recovery not calculated. Sample concentration >4X the spike amount, therefore, the spike could not be adequately recovered.
- = No Relevant Standard

STAFF REPORT

Date: January 25, 2021

To: North Valleys Water Management Subcommittee

Thru: Doug Thornley, City Manager

Subject: Staff Report: Status of the Lemmon Valley Marsh and Playa Effluent Reuse Agreement

From: Kerri Lanza, P.E., Engineering Manager

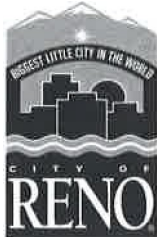
Summary: At the November 4, 2019 North Valleys Water Management Subcommittee Meeting, a question was raised as to the status of agreement(s) entered into previously sending effluent to the Lemmon Valley Marsh in support of wetlands. The City entered into an Agreement with Washoe County in February 1999 to provide reclaimed water in order to develop and maintain the Lemmon Valley Marsh and Playa as a National Audubon Bird Sanctuary. The agreement is in effect for twenty-five years with the right to extend for an additional twenty-five years.

Discussion: Attendees of the November 4, 2019 North Valleys Water Management Subcommittee questioned the status of the subject agreement and wanted to know if agreement had expired, and whether there were any terms that dictated whether the requirement to send effluent was limited to dry years.

The City agreed to assign a secondary water right from the primary rights of the Stead Wastewater Facility of “at least” 490 acre-feet of effluent or from the “Unnamed Stream” (creek) water right per calendar year for the purpose of maintaining the Lemmon Valley Marsh and Playa as an outdoor education center and National Audubon Bird Sanctuary. The purpose for use of the Unnamed Stream (as described in associated staff reports), is to make up for any deficiency of effluent quantity when effluent water is insufficient during months of high demand.

The agreement is still in effect, and does not contain provisions to consider wet or dry years.

Subsequent to the February 1999 Agreement with Washoe County, the City of Reno entered a Memorandum of Understanding in April 1999 with Bureau of Land Management, Lahontan Audubon Chapter, Nevada Division of Wildlife, Nevada Office of Military, Washoe County, and Washoe County School District regarding the Lemmon Valley Marsh and Play Swan Lake Nature Study Area. The City of Reno’s commitment to provide 490 acre feet of reclaimed water to the Marsh AND 3 cfs of stream flow from the “Unnamed Creek” is re-stated therein.



Office of the City Manager

MEMORANDUM

DATE: January 20, 2021
TO: Mayor and City Council
THRU: Doug Thornley City Manager
FROM: John Flansberg, P.E., Director of Public Works
SUBJECT: **Status of Sewer Allocation for Reno Stead Water Reclamation Facility**

This memo is provided as a regular update on the status of available sewer capacity and projects pending approval to be served by the Reno Stead Water Reclamation Facility (RSWRF). **There have been five projects added to the Allocation List since the December 24, 2020 memo.**

Project Description Allocation List	Single Family (gallons/day)	Multi-Family (gallons/day)	Commercial / Industrial (gallons/day)
Nevada Towing-APN 090-051-23			40
Silver Peak Apartments Phase 3 (112 units)		19,600	
Silver Dollar Estates Area 4 Phase 1 (57 units)	9,975		
Silver Dollar Estates Area 1 Phase 1 (52 units)	9,100		
Fragrance.net Tenant Improvement. (APN 090- 040-19)			210
Tenant Improvements. Warehouse (568-033- 04)			16
The Lakes at Lemmon Bldgs 21-43 (184 units)		32,200	
Aloha Shack Remodel			65
Silver Dollar Estates Area 2 Phase 2 (57 units)	9,975		
Silver Dollar Estates Area 2 Phase 1 (37 units)	6,475		
Silver Dollar Estates Area 3 Phase 2 (40 units)	7,000		
Silver Dollar Estates Area 3 Phase 1 (44 units)	7,700		
313,000 sf shell warehouse (APN 082-101-72)			175
The Lakes at Lemmon Bldgs 44-48 (40 units)		7,000	
Becknall Industrial LLC - Commercial Shell			175
North Valley Estates I- Unit 1 (43 units)	7,525		
North Valley Estates II - Unit 2 (52 units)	9,100		
Vista Enclave (75 units)	13,125		
Regency Park II, Phase B1 (53 units)	9,275		
Prologis Military Rd - Makita			175

Prologis Military Rd - Makita - Shell			175
Makita USA Bldg 2 Tenant Improvement			416
Makita USA Tenant Improvement - Shell			1,070
North Valleys Estates - Unit 2 Phase 2	13,825		
Grey Goose Self Storage (APN 086-101-41)			57
Viega TI (APN 090-051-06)			117
600 sqft office building (APN 086-149-09)			138
Regency Park Phase 2 B2	7,350		
Stonefield Phase 4 Village 3B	3,325		
Stonefield Phase 4 Village 4	12,600		
BLD20-09088 - Uline Phase 3 (APN 552-250- 21)			1575
BLD20-07828E - Project Tusk Logistics Center (APN 082-101-09)			2569
FNL18-00011 Regency Park II Phase A2	7,350		
FNL19-00021 Regency Park II Phase B3	4,200		
FNL20-00012 - North Valley Estates Unit 3 Phase 1 (APN 568-041-21)	875		
FNL20-00014 - Silver Dollar Estates Area 1, Phase 2	8,750		
BLD20-09950 - Lear Blvd Remodel (APN 568-033-03)			21
FNL18-00007 Regency Park II Phase A1	7,175		
BLD20-08183E - Sierra Nevada Academy Charter School (APN 086-151-07)			332
BLD20-08908E - ATS Physical Therapy T.I. (APN 090-150-23)			81
BLD20-07797E - Red Rock Retail BLDG Shell (APN 087-710-10)			175
FNL21-00002 - Silver Dollar Estates Area 2, Phase 3	8,050		
BLD19-10866 - Sage Point 8 (APN 086-143- 05) - Shell			175
BLD21-00939E- Compass Health (APN 082- 101- 79)			231
BLD11-02291 to 303-The Lakes Sky Vista Apartment Buildings 49-61 APN-086-380-15		18,200	
BLD20-09342E - North Virginia Industrial Flex Space Sewer Lines Extension and Phase 1 (APN 082- 092-19)	350	2,275	113
FNL21-00004 - Silver Dollar Estates Area 3 Phase 3 (APN 554-342-03)	14,000		
BLD21-04637 - Continental Tire TI (APN 086-143-05)			356
BLD21-04922 - Silver Peak Apartments Phase 4 (APN 086-390-20)		1400	
BLD21-04923 - Silver Peak Apartments Phase 4 (APN 086-390-20)		1400	

BLD21-04925 - Silver Peak Apartments Phase 4 (APN 086-390-20)		1400	
BLD21-06221E - Commercial Remodel & Addition (APN 090-040-30)			97
Total	177,100	83475	8554

In these memorandums, we are focusing on remaining capacity based on the Council direction to utilize only 125,000 gallons of the 500,000-gallon flow shave capacity for development at this time. (Council direction 9/11/2019 (75,000 gallons) and 11/4/2020 (additional 50,000 gallons).

Per the attached RSWRF sewer allocation worksheet, there are 36,883 gallons of sewer capacity available for development. This is approximately 210 equivalent residential units (ERU's).

The unrealized permitted flow by use-type as follows:

- 66% Single Family Residential (SFR);
- 31% Multi-Family Residential (MFR);
- 3% Commercial / Industrial

As part of this memorandum, we have included the cumulative "Volume Flow Shaved from RSWRF to TMWRF" that has reduced the overall amount of effluent going to Swan Lake with gray bars showing the monthly totals (as measured from right side of graph) and the total cumulative volume shown as the projected (orange) and actual (blue) lines (as measured from the left side of graph). Also included is the total amount of water diverted or directly pumped out of Swan Lake as part of the "Swan Lake Management Strategies" approved by City Council, which includes the flow shave, effluent reuse to existing customers, and the pumping of water to American Flat Farm.

Finally, we have attached the latest Swan Lake Water Elevation graph which shows Swan Lake at the lowest elevation since measurements began to be recorded in February 2017. Based on the general outlook of another dry winter, the flow shave may be discontinued in the near future to ensure that there is enough water in Swan Lake to support the wetlands.

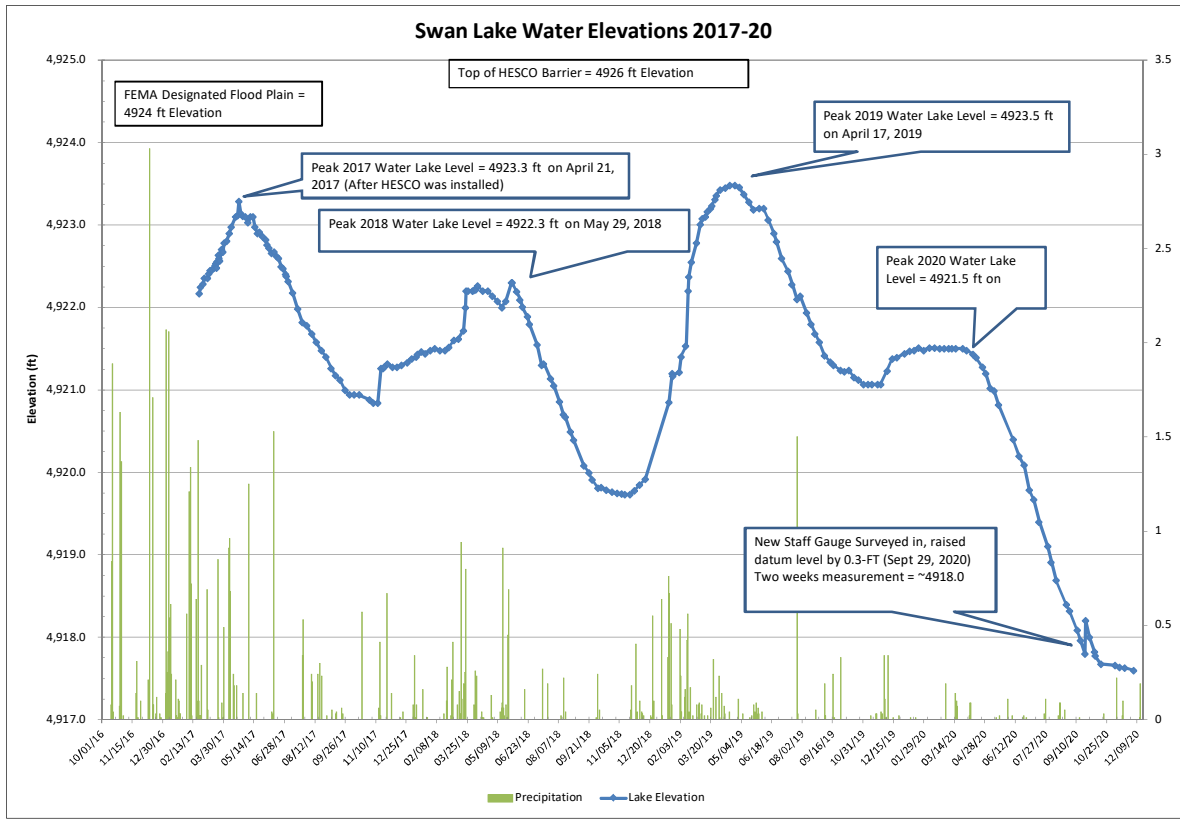
The most recent RSWRF allocation report is attached for your information.

Attachments:

- Reno Stead Water Reclamation Facility Sewer Allocation Worksheet
- Volumes Flow Shaved from RSWRF to TMWRF
- Swan Lake Management Strategies
- Swan Lake Water Elevation (December 15, 2020)

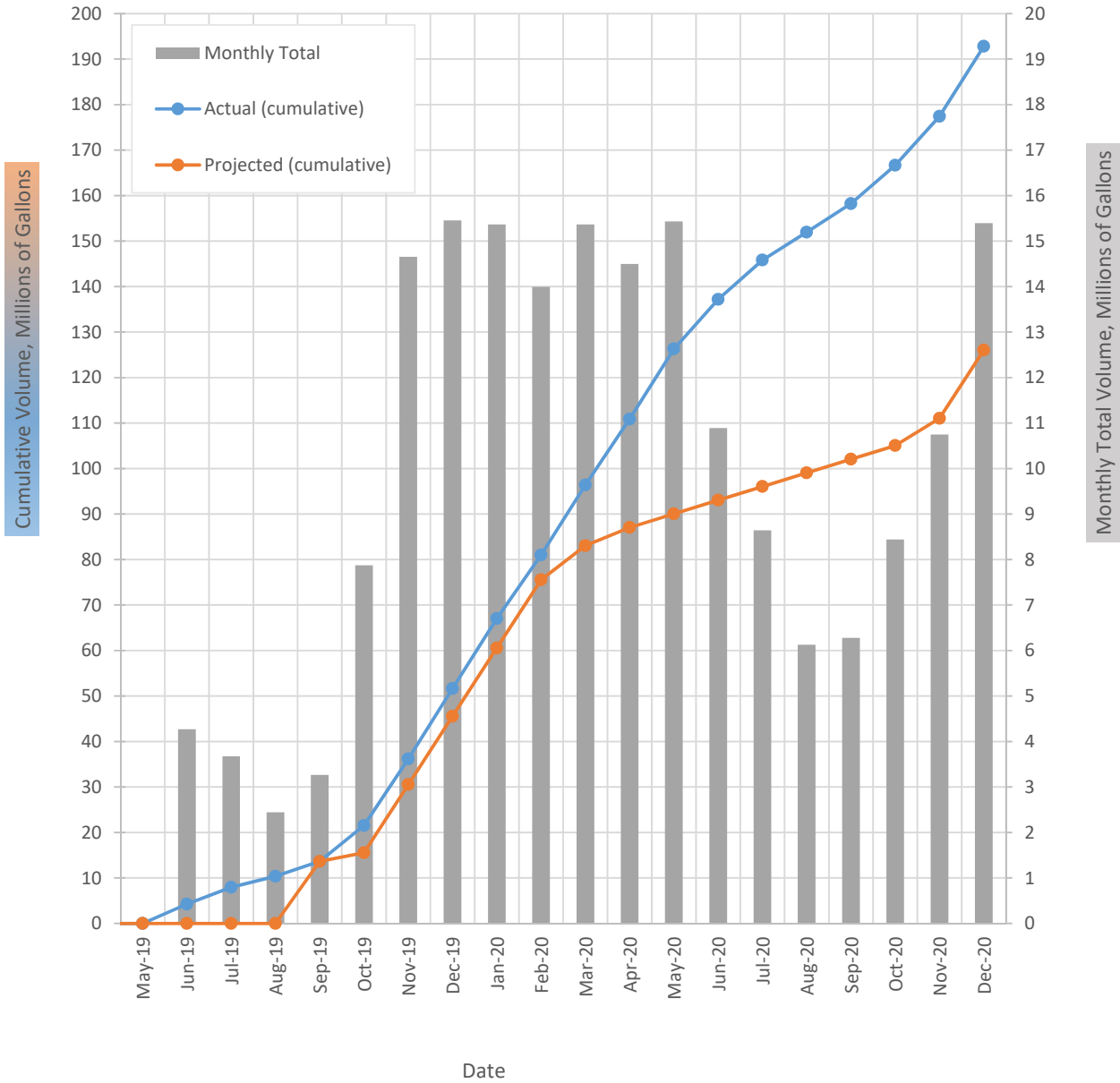
Swan Lake

Latest Swan Lake Elevation	
12/15/2020	4917.8



rev: 1/13/21 through Dec 2020

Volumes Flow Shaved from RSWRF to TMWRF



rev: 1/13/2021; through Dec 2020

Swan Lake Management Strategies

