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DATE: January 6, 2011
TO: Maria Gladziszewski, Chair
Planning Commission
FROM: Rorie Watt, PE, Director 
Engineering Department
RE: Sewer Projects – Next Steps

As the City completes the current West Valley and North Douglas sewer extensions, we need to decide how to program remaining sales taxes that are slated for sewer and development projects. Concurrent with the extension of sewer and the planning of these development projects, the Lands Department is preparing an update to the Land Management and Land Disposal Plans that will evaluate and prioritize development and disposal of various parcels of Municipal Land.

From the 2011-14 temporary sales tax, it is expected that these projects will receive approximately \$8.6M of additional funding. That number could increase with state grants and/or LID fees. Attached to this memorandum are relevant excerpts from voter information guides, a map of the urban service boundary and a map showing project areas. Potential project areas that could be funded under the sales tax include:

Douglas Highway "donut hole" (small area of West Juneau)

There is a small residential area of Douglas Highway between David Street and Forest Edge Condominiums that is not served with municipal sewer. Despite the provision of sewer to surrounding areas in the 1970's, a few homes continue to operate on-site wastewater systems. In denser urban areas like this, on-site sewer is no longer appropriate. Serving this area with sewer will cost approximately \$100-\$150,000.

Auke Lake "donut hole" (property owners over the crest of the Glacier Hwy hill)

There are approximately 15 homes and properties on Glacier Highway between the crest of Pedersen Hill and Auke Lake that are not served with municipal sewer. It would be relatively simple to serve these homes with a small diameter pressure sewer (homeowners would have to pump). This project could also serve the planned Auke Lake restrooms. A municipal pumping station is not advised in the short term – if we were to build one it would have to anticipate a number of issues including whether or not the Auke Bay Plant will remain in operation, and whether or not sewer will be extended down Fritz Cove Road. Estimated Cost to provide owners with pressure sewer: \$200,000 - \$300,000.

Mendenhall Peninsula (Engineer's Cutoff, Fritz Cove Road)

Extending sewer to Mendenhall Peninsula would be relatively costly and it is not possible to serve a majority of the properties with gravity sewer. Unlike the North Douglas extensions, there is no beach access that would allow for gravity sewer for downhill owners. The topography is rolling and a sewer extension would require numerous municipal pumping stations.

The current neighborhoods are zoned D-1, and there does not appear to be much room for development along the existing road corridors. While about half of the peninsula is zoned transitionally *D-1 (T) D-3*, the current built environment may make denser development quite controversial along the existing roadways. Development of the top of the peninsula is a much lower municipal priority than other City lands. On a per customer basis, this area would be most expensive to serve and maintain, with the lowest gained development utility. Cost to Serve Mendenhall Peninsula Existing Roads: \$14M.

Pedersen Hill

For a number of years, the City has discussed developing municipal lands on Pedersen Hill, but those discussions have awaited the provision of sewer. Sewer is now available to the area, but an access corridor is needed to open the area for development. The area is promising for residential development, is transitionally zoned D-1 T D-5 and would allow for significant long term development and disposal of municipal lands. It should be noted that the Comprehensive Plan supports much denser zoning for the area.

Development of the Hill is currently under active consideration by the CBJ Lands Manager and the Assembly Lands Committee. Preliminary planning efforts include the completion of a traffic study, wetland mapping and an analysis of development options. In the long term, this area has the potential to add significant dwelling units to the community. The Pedersen Hill lands are being evaluated along with a handful of other municipal parcels for short to near term development and/or disposal. Of lands served with sewer under the sales tax projects, the Pedersen Hill lands are the most promising, but they have not been evaluated in context to other CBJ lands. Cost to provide Access/Utilities to the Hill: \$7.5M.

North Douglas – West Juneau connection

Provision of sewer to North Douglas has opened a significant amount of land for development. Access and water pressure/flow are issues in this area as well. The area has water pressure along the highway, but it is generally not sufficient to serve higher up sections of the properties. Increased water pressure can be obtained by constructing reservoirs (expensive) or pump stations (expensive & maintenance heavy) or by directly connecting a pipe to the high pressure zones that are fed from the West Juneau reservoir.

North Douglas Highway already has many driveways for a road of its speed and volume; road access is an issue in the area. Significant future developments will require main highway access points, but it is not preferable to replicate the model of West Juneau or above Twin lakes where many residents are confined to a sole point of access. Redundant access is highly desired for emergency response, provision of water service and fire flows, snow routes, general maintenance and traffic reasons. West Juneau access is particularly weak given the steep grades of Cordova Street and peak traffic congestion issues.

Zoning maps have long supported a connection between West Juneau and North Douglas. This connection makes sense for redundancy of access to both neighborhoods (current and future) and allows for provision of sufficient water flow and pressure without the cost of additional infrastructure. For long term development of the area, this connection would benefit both North Douglas and West Juneau. Estimated Cost to Build Connection & Extend Water: \$5M.

Conclusion:

The expenditure of these monies will guide a significant amount of development in the next 20-30 years. Concurrent with the extension of sewer and the planning of these development projects, the Lands Department is preparing an update to the Land Management and Land Disposal Plans that will evaluate and prioritize various parcels of Municipal Land. With regard to the more immediate expenditure of funds, the Commission should make its views known to the Assembly on the topic. My recommendation is as follows:

West Juneau – Fill in area without sewer.

Auke Lake – Contact property owners and gauge their interest in connecting to pressure sewer. If positive proceed with project.

Mendenhall Peninsula – Defer extension of sewer until development of municipal lands on top of peninsula is a priority.

Pedersen Hill – Continue to planning, permitting, design and funding of access corridor.

North Douglas – West Juneau Connection – Pursue preliminary design, property negotiations and cost estimate.