

WMD Expansion Request
Gradall Hydraulic Excavator with Telescoping Boom

Time savings that will be realized with the proposed Gradall Hydraulic Excavator for gulch and forebay maintenance is best illustrated by pictures showing labor and equipment used to maintain Aqua Golf, City Park Golf Course, Sloan's Lake and other facilities (see below). These pictures show the use of our excavator that does not have enough reach, vac trucks that are intended for sewer and inlet cleaning, and skid steers and loaders in the forebays to remove sediment. All of this equipment and labor to clean forebays is not safe (equipment gets stuck in the muck), not efficient (number of trips for skid steer and loader to and from dump truck), and is preventing Wastewater from meeting production goals for other types of work where this equipment and labor is needed. Using a Gradall Hydraulic Excavator with a telescoping boom will allow us to remove sediment more safely and more efficiently. Consequently, performance metrics (level of service - completing work before expected completion dates and increased number of work orders completed in a month because of time savings) will be positively impacted. First year vehicle maintenance cost will be approximately \$7,000.00

To help offset budget expansion, Manhole Riser trucks DM-17 and DM-19, and Crew Lead truck DM-18 are offered.

DM-17 is a 2003 Ford F450 Flat Bed Truck. DM-19 is an International Flat Bed Truck. Each has an estimated replacement value of \$120,000. These manhole riser trucks are now underutilized because Street Maintenance Paving Operations are protecting manholes with Safety Ramps and by milling around them rather than adjusting them before and after paving.

DM-18 is a 2004 crew lead vehicle that would need to be replaced to serve construction crews but is also underutilized. If we were to replace DM-18 with a truck similar to DL-102 (latest WW crew lead vehicle) the cost would be approx. \$90K. This estimate is for a Diesel since crew trucks are used to haul trailers.



Existing excavator that cannot reach far enough into the forebay to remove all debris/sediment.



Loader that has to enter forebay. Some drainage and water quality facilities do not have appropriate access paths or the facilities are too large to allow maintenance without having to enter the forebay or pond. Entering the forebay with an excavator or backhoe is not safe where there is accumulated wet sediment that cannot be dried easily due to base flow (urban drool).



Entering the forebay with loader is not safest method since there is accumulated wet sediment that cannot be dried easily due to base flow (urban drool).



Many trips to the dump truck makes the current process inefficient.



Equipment and labor that is being used for less efficient forebay cleaning but could be used on other jobs to meet other WMD goals for cleaning/repair/maintenance if we had a Gradall Hydraulic Excavator with Telescoping Boom.