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November 14, 2023

Carmel Area Wastewater District
3945 Rio Road
Carmel, CA 93922

Ken White, Board President	white@cawd.org
Bob Siegfried, Member	siegfried@cawd.org
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Barbara Buikema, Genereal Manager	buikemawhite@cawd.org

RE: Carmel Meadows Sewer Replacement Project
Board Meeting on November 16, 2023

I support maintaining the simple and effective gravity flow sewer system concept and I am against altering the existing sewer system by installing more complex power dependent grinder pumps. In my over 50 years of design and construction career I have shared the opinion with many architects, engineers, and contractors that simpler is better.

Doesn't the CAWD have a mandate to insure that they provide cost efficient and durable services fitting and suitable for the specific areas affected?

Shouldn't the CAWD strive to enhance and improve services to assure safe and durable service for all Customers?

What regulations govern the CAWD decision making?

Carmel Area Wastewater District Mission Statement
The Carmel Area Wastewater District is a special district dedicated to the protection of the public health and the environment through the cost effective collection and treatment of wastewater and the return of clean water to the environment.

GRINDER PUMPS compared to a gravity flow system.

A) Consume unnecessary energy.

B) Are far more complex.

C) Are subject to far more frequent maintenance.

D) Subject to power failure outages.

E) Require emergency maintenance during outages which may last from minutes to may days.

F) Remote or isolated locations may prevent maintenance crews from restoring service.

G) Major street cutting, trenching, grading, back-filling, compacting, and patching will degrade the infrastructure and lead to long term settlement and visual impairment.

H) A series of inspection portals, manholes and cleanouts will further impact the rural street setting and traveled surface.

GRAVITY FLOW SYSTEM FEATURES

1. Visual impact of a suspended black or neutral colored HDPE pipe is minimal.
2. The closest vantage point across the wetland / marsh is the Mission Inn a half mile away from where I am unable to see the existing line.
3. HDPE (High Density Polyethylene) pipe is exceedingly durable, likely far more durable than the pipe that has lasted over 30 years.
4. Should there be concerns of leakage, a “sleeved pipe”, one pipe inside of another could be utilized to capture and detect any spillage.
5. The pipe can be structurally supported with “A” frame pipes drilled into the soil upon concrete blocks or by column supports designed with seismic load factors. Pipes may be further strengthened through the use of a “strongback” such as angle iron or channel iron banded to the pipe. Suspension cables such a used on many bridges, (SF Bay Bridge, Golden Gate Bridge) can also be used to support the pipe. This creates a very low impact.
6. There is an array of suitable methods to reconstruct a reliable gravity system.
7. Access trail for equipment, service, inspection, and walking / jogging. The construction access path can be landscaped or maintained as a wetland access feature.

I have significant experience in design and construction both as a Landscape Architects (CA Lic. 1784) and Landscape Contractors (CA Lic. 276972).

In addition working with many hundred plant species, I have extensive experience in projects including demolition, grading, drainage, piers, footings, building structures, retaining walls, swimming pools, driveways, parking lots, electrical systems, lighting, irrigation, asphalt and concrete mix designs, etc.

I fully supported my college education by designing and installing irrigation systems allowing me to graduate in 1970 with a 5 year degree from the University of California Berkeley. In addition I taught an irrigation class at Foothills College in Los Altos Hills CA.

Irrigation design involves calculating the water velocity and friction losses to support the water pressure and volume available as it relates to the chosen equipment and need.

My long experience as a successful Landscape Architect / Contractor has taught me that SIMPLER IS BETTER and I back this statement with years of experience. I oppose the proposed complex and apparently unnecessary complex sewer proposal.

Respectfully,

Peter D Lockhart

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