



Executive Summary

NPDES Permit Renewal:

Regional Board Adopts
New 5-Year Permit

Atmospheric Rivers:

Lessons Learned and Operational
Changes Implemented

Collection System Maintenance:

District Purchases Hydro Jetter

Fats, Oil and Grease "FOG":

Disposal Alternatives

2017 District Election:

Incumbents to Be Appointed
to new 4-Year Terms of Office

NEW 5-YEAR NPDES PERMIT ADOPTED JUST IN TIME FOR MASSIVE 2016-17 WINTER

On June 24, 2016 the Regional District faced a Cease & Desist While many dam's in the state were Water Quality Board adopted Waste (C&D) Order in 2002 threatening overflowing, or worse crumbling, and Discharge Requirements (WDR) the economy in Bear Valley nearly other agencies were simply ill prepared Order R5-2016-0045. 20 years ago and the agency without alternative discharge solutions moved to borrow money to install such as surface discharge, years of careful

While this was the District's third the surface discharge system in and methodical attention to this complex National Pollutant Discharge 2007, the District successfully regulatory pathway provided a solution Elimination System (NPDES) order discharged treated, compliant that enabled the District survive the winter concerning discharge of effluent to effluent to Bloods Creek during of 2016-17 without spilling one drop of surface waters, for the first time March, April, May and June this wastewater.

this particular approval provided for past winter. The regulatory requirements behind this full compliance with the terms of The massive winter of 2016-17 achievement included completing two the order culminating years of produced volumes of wastewater in separate mixing zone studies in Bloods dedicated staff time and to the system not seen since 2011. Creek which EPA guidelines provide as an considerable fiscal resources to meet EPA & Regional Board As of approximately March 1, 2017, option when agencies have difficulty requirements during the past five the District's 75 million gallon (MG) meeting "end of pipe" effluent limitations years. storage reservoir was nearly 90% as well as performing water full with over 65 MG of water characterization and aquatic toxicity analyses of treated effluent.

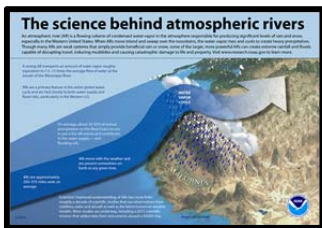
Moreover, the adoption would come impounded. Locally, careful planning and close just in time to support the District Faced with several more months of attention to fine tuning as well as as it sought to carefully manage winter to go, the decision was replacing various components of the 10 and ultimately dispose of the made to execute the first ever year old discharge system was critical to enormous volume of water the discharge to surface waters in the the successful surface discharge of treated District received this past winter. District's history and avoid potential effluent during this past winter. Indeed, for the first time since the catastrophe and overflow.

2017-18 BUDGET TARGETS PREPARING FOR FUTURE "ATMOSPHERIC RIVER" EVENTS

While careful planning and a even unique to Bear Valley, rainfall past winter did just this: unloading in excess favorable regulatory environment at high elevations has been of 10 inches of rain at 7000' elevation and contributed greatly to the District's increasing over the decades as higher in just two days. The rain lead to successful management of the storms from the Pacific Ocean are extensive flooding in Bear Valley and greatly massive water volume this past warming leading to the coining of taxed the District's collection, treatment, storage and disposal systems.

winter, it also became exceedingly the term "atmospheric river." Consequently, District staff are implementing evident this year that a warming climate has necessitated a strategic change at the District to manage what may be ever increasing water volumes in future years. The term atmospheric river was first coined in a seminal scientific paper published in 1998 to define those weather events where most of the warm water vapor in a storm where possible, expanding disinfection capacity, maintaining lower levels in wet wells and lagoons providing for more capacity during extreme events, identifying points of infiltration into the collection system through jetting (cleaning) and camera analysis, expanding contingency equipment on hand to set up station bypasses if necessary as well as sandbagging several buildings in advance of the season to reduce water intrusion into facilities of the District.

Water, including snowfall but is transported in relatively narrow particularly rainfall during the zonal flow patterns in the winter months, enters the atmosphere. These types of wastewater system both directly events have now become closely associated with rainfall events where, for example, 10 inches of treatment lagoon and storage where rain over 2 days more routinely causes widespread flooding across reservoir, as well as indirectly through manholes and cracks in collection lines at times inundating the state. The atmospheric river events of January 8 – 10 and February 9 – Though not a new phenomenon or 11 this



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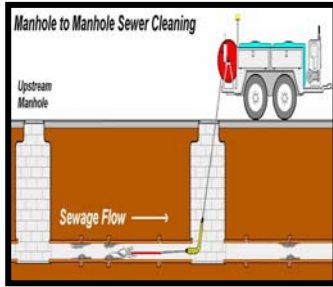
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COLLECTION SYSTEM MAINTENANCE GETS AN UPGRADE



With many of its permitting, The District's strategic plan, aided This set of favorable conditions has led the treatment and disposal challenges in a great measure by the adoption District to purchase its first hydro-jetting behind the agency, the District has of the 2016 NPDES permit, has trailer unit. Hydro-jetting of collection turned its attention to the critical permitted the District to redirect lines, followed by analysis by a sewer task of assessing and maintaining both fiscal and staff resources to camera, is considered among "best the District's near 20 miles of the proper management of this vital practices" in the maintenance of collection collection system. underground asset array. lines.



The collection system, now 45 The adoption of the 2016 NPDES Jetters use high pressure water to clean years old, is the 90,000 linear foot permit, which allows for surface the inside of collection lines, removing underground network of both water discharge of treated effluent debris such as grease which may be gravity flow and force main or under certain conditions, is adhered to the walls of sewer lines as well pressure pipe which carries anticipated to save the District as removing roots, rocks, egg shells, kids wastewater from homes and significant resources by providing toys and many other items which often businesses to the treatment reductions in costs associated with end up in collection lines potentially system. If not maintained properly, electricity, fuel and rental causing blockages if not removed. This these lines can develop blockages equipment required when purchase alleviates the cost associated which can lead to sewer system exclusively applying effluent to with previous outsourced contract jetting overflows or "spills" causing great land. work saving the District and its ratepayers over \$7000 each year.

"FOG" - FATS, OILS AND GREASE – DISPOSAL ALTERNATIVES



With the holiday season fast To prevent these problems, we the bag shut and dispose of it in a trash approaching, the District would like encourage you to dispose of these receptacle.

to take this opportunity to remind cooking bi-products safely.

you of how best to dispose of fats, cooking oils and grease (FOG) Here are some alternative disposal material such as coffee grounds, place in a when preparing holiday meals. suggestions that will reduce your lidded container and dispose in a trash impact on Bear Valley's wastewater receptacle.

- Mix cooking oils with an absorbent
- Here are some alternative disposal material such as coffee grounds, place in a lidded container and dispose in a trash receptacle.

As a reminder, fats, cooking oils, and grease (FOG) can coat and clog pipes and cause sewer lines to back-up into homes. "FOG" can also cause blockages further down sewer lines creating system overflows as well as disrupt waste water treatment processes with detrimental results.

- Mix cooking oils with an absorbent material such as coffee grounds, place in a lidded container and dispose in a trash receptacle.
- If you're soaking a greasy pan, first pour grease off grease into a container. Then place the paper towels over the drain basket to catch garbage disposal or drain, try the grease and food as you pour the soaking water down the drain.

- Place fats, oil, and grease in a These environmentally friendly kitchen container with a tight-sealing lid, practices are simple alternatives to put the container in a trash bag, tie disposing of these harmful bi-products and better for wastewater disposal operations.

BVWD BOARD OF DIRECTORS WELCOMES INCUMBENTS FOR ANOTHER TERM

The 2017 District election resulted in no contest for incumbent candidates Jim Bissell, John Boyle and Stefaniya Becking. No additional declarations of candidacy were received the by Alpine County Clerk before the August 2017 deadline.

this December. The four year been a perfect fit for the District as water term of office for these Directors quality issues related to securing the new will expire December 5, 2021. NPDES permit has been paramount.

With an extensive background in On the Board since 2003 and a veteran in both business and non- engineer in the wastewater industry, Jim profit/public sector finance, John Bissell's guidance, leadership and experience Boyle has become an invaluable has been vital to the progress made at the resource for fiscal planning efforts District over the last 14 years. at the District.

As a result, no formal election was required, saving ratepayers Steffi Becking's academic community member to consider a seat on the thousands of dollars. Directors background is in chemistry (B.S., Board in the years to come as vacancies will Bissell, Boyle and Becking will be UC Berkeley) and environmental certainly arise as Directors serve out their sworn in after the new term begins engineering (M.S., Stanford) have terms.

Did you know.?

Auto Pay & E-bill Services

As a reminder, BVWD provides both automatic bill payment options as well e-bill and e-newsletter services.

To sign up for electronic billing and automatic payment services, visit the Payment Options page at bearvalleywater.org and complete the authorization form.

Questions ? Call 209.753.2112