Highlights of the New NPDES Permit

Presentation to NapaSan Board of Directors
February 16, 2022
by Monica Oakley

Outline for Discussion

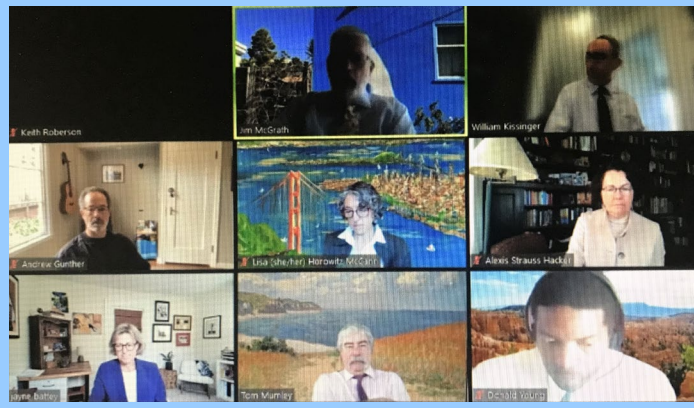
- NPDES Permits – Brief Review
- Permit Dates
- Permit Adoption Hearing – February 9, 2022
- Notable Changes from Previous Permit
- Constituents with Effluent Limits
- Monitoring Frequency Changes and Cost Savings
- Concluding Remarks

Permit Dates

- Renewal Application Submitted November 30, 2020
- Tentative Order (Public Review) Issued December 10, 2021
- Adopted February 9, 2022 (Uncontested Calendar)
- Effective April 1, 2022
- Expires March 31, 2027

Permit Adoption Hearing – Feb. 9, 2022

- Held by remote teleconference
- NapaSan permit – uncontested item
- One board member:
  - Noted year-round recycled water program
  - Commended District for extensive funds being spent on the collection system



- All 6 Board members voted for adoption

Notable Changes from Previous Permit

- Reduced Ammonia Effluent Limits:

Timing	Average Monthly Effluent Limit (AMEL)	Maximum Daily Effluent Limit (MDEL)
Old permit	21 mg/L	49 mg/L
New permit	15 mg/L	48 mg/L

- Removed Oil & Grease Effluent Limits

- Made Chlorine Residual Limit Conditional:

Timing	Type of Limit	Effluent Limit
Now	Instantaneous	0.0 mg/L
After USEPA approval of new chlorine water quality objective	One-hour average	0.065 mg/L

More Notable Changes

- New Enterococcus Effluent Limits

Timing	Monthly Geometric Mean	Six-Week Rolling Geometric Mean	No More Than 10% Shall Exceed
Old permit	35 MPN/100 mL	--	--
New permit	--	30 CFU/100 mL	110 CFU/100 mL

- Changed influent BOD and TSS monitoring from year-round to only during river discharge
- Reduced influent and effluent mercury monitoring from 1/Month to 1/Quarter
- Removed requirement to report Mean Hydraulic Residence Time (MHRT) and Secondary Equalization (EQ) Time
- Reduced acute toxicity monitoring from 1/Month to 2/Year
- Reduced enterococcus monitoring from 2/week to 1/week
- Ensured sufficient time to perform essential maintenance on continuous chlorine analyzer

Constituents with Effluent Limits

Constituent	2016 Permit	2022 Permit	Notes
Biochemical oxygen demand (BOD)	✓	✓	
Total suspended solids (TSS)	✓	✓	
Oil and grease	✓		Removed limits
pH	✓	✓	
Total residual chlorine	✓	✓	New limits (conditional)
Copper	✓	✓	
Nickel	✓	✓	Slight decrease (0.1 mg/L)
Cyanide	✓	✓	
Dioxin	✓	✓	
Ammonia	✓	✓	Lower limits
Percent removal (BOD and TSS)	✓	✓	
Enterococcus bacteria	✓	✓	New limits
Acute toxicity	✓	✓	

Monitoring Frequency Changes

Constituent(s)	2016 Permit	2022 Permit	Estimated Cost Savings to District During Permit Term *
Influent BOD	1 / week year-round	Only during discharge	$46,000
Influent TSS	1 / week year-round	Only during discharge	$33,000
Influent priority pollutants (VOCs and BNAs)	1 / year	1 / permit term	$2,000
Influent mercury	1 / month	1 / quarter	$2,000
Effluent oil and grease	1 / year	none	$1,000
Effluent mercury	1 / month	1 / quarter	$4,000
Effluent enterococcus	2 / week	1 /week	$13,000
Effluent acute toxicity testing	1 / month	2 / year	$150,000
Mean hydraulic residence time (MHRT) and EQ Time	1 / month	none	$3,000
Biosolids priority pollutants (VOCs and BNAs)	1 / year	1 / permit term	$2,000
Receiving water monitoring	5 to 3 stations, but increased monitoring at remaining 3 stations		--

* Based on river discharge of treated wastewater for 6 months per year

Successful NPDES Permit Adoption Was a Team Effort

- Tim Healy
- Andrew Damron
- Jim Keller
- Chris Francis
- Gabe Snook
- Monica Oakley