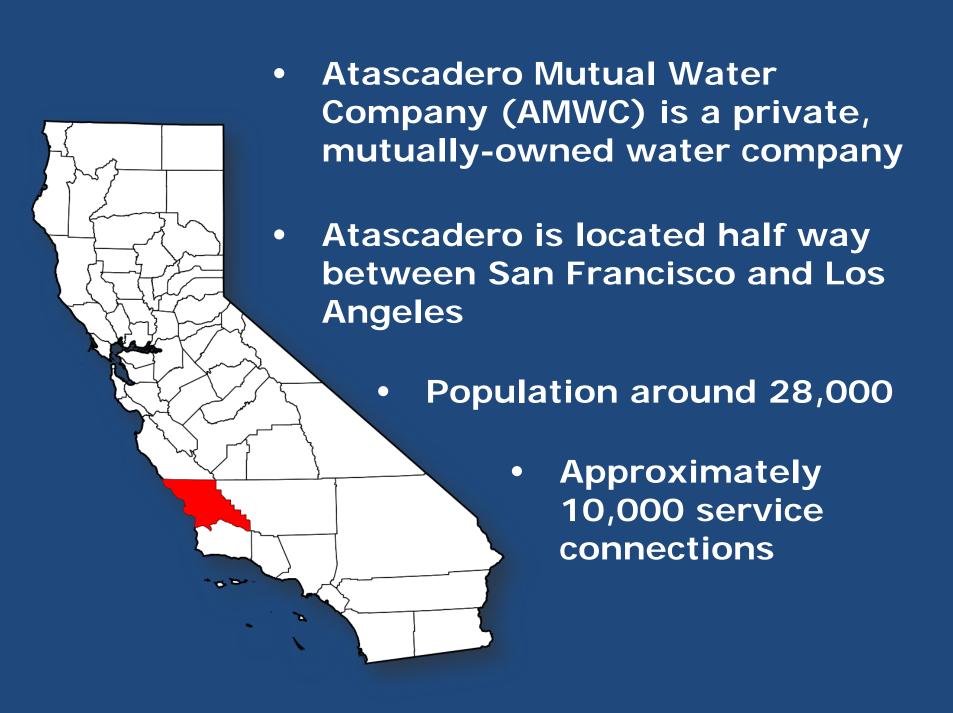
Survey123 for NPDES





Atascadero Mutual Water Company Lorraine Halderman, GIS Administrator



What is NPDES?

National Pollutant Discharge Elimination System (NPDES)

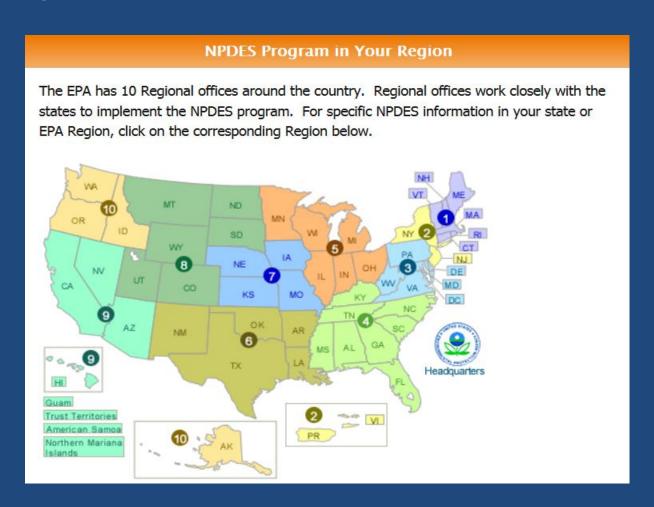
"The NPDES permit program addresses water pollution by regulating point sources that discharge pollutants to the waters of the United States.

Created in 1972 by the Clean Water Act, the NPDES permit program is authorized by state governments by EPA to perform many permitting, administration, and enforcement aspects of the program."

Source: https://www.epa.gov/npdes

Regional NPDES Programs

Regional offices work with the states to implement the NPDES program and specific information by State or EPA region is available on the EPA.gov website.



Reporting

- Annual Reporting by calendar year
- Documentation & reporting requirements

L NAVOES PERMIT FOR DRONKING WATER STSTEN STATEWILE SENERAL NPUE ORDER WQ 2014-0194-0WQ NPDES NO. CAG140001

ATTACHMENT E - MONITORING AND REPORTING PROGR

Discharges from drinking water systems, as authorized by this managed to not adversely affect or impact beneficial uses of a managed to not adversely arrest or impact beneficial uses or; purpose of the monitoring and reporting requirements contain, and Reporting Program is to provide information demonstration enter coparting magazin is to provide information demonstrate, and the provide information demonstrate, and the provided information demonstrates are provided information demonstrates and the provid property impremented to protect surface water quarry. Fine validate that the management practices are performing prop-tins Order and protect receiving waters from adverse impact

Trile 40 Code of Federal Regulations part 122.48 requires Title 40 Code or Federal Regulations part 122 no required Elimination System (NPDES) permits specify monitoring a California Water Code sections 13267 and 13383 also auf Control Board (State Water Board) and a Regional Water Water Board to require technical and monitoring reports Program establishes monitoring and reporting requirement State of California regulations.

Dischargers authorized under this Order shall comply Attachment D related to monitoring, reporting and reo

I. GENERAL MONITORING PROVISIONS

- nature of the monitored discharge after imple (BMPs). All samples shall be taken at the m unless otherwise specified, before the disch waste stream or body of water.
- B. Chemical analyses that require laboratory exception of application requirements for established TMDL requirements identified related requirements prescribed to the w Discharger shall conduct onsite field me residual per quality assurance and quali U.S. EPA guidelines, or procedures app Association or other professional drink
 - properly calibrated and maintained fie using handheld devices by trained p available for inspection by State of

ATTACHMENT E - MONITORING AND REPOR

STATEWIDE GENERAL NPDES PERMIT FOR DRINKING WATER SYST ORDER WQ 2014-0194-0WQ NPDES NO. CAG140001

B. Annual Representative Monitoring Requirements This Order allows discharges of similar nature to be mon basis. Representative monitoring is the use of monitoring monitoring sample to represent other discharges expected

- quality. A representative monitoring measurement must re nature, meaning discharges that have all the following item (a) The same general water source (ground water or su
- (b) The same water treatment, and
- (c) The same type of implemented BMPs.

The Discharger shall monitor all planned discharges not listed The organization and monitoring, as previously defined in this constituents specified in Table E-3 and per the frequency specified.

Table E-3. Annual Representative Monitoring Requi-

Parameter	require	ments
Chiorine, Total Residual 1.1	Units	Samp
Volume	mg/L	1/1/4
Turbidey	Gallons	1/Ye
A handheid field meter shall be us algorithm/method and is calibrated a	NTU	1/Ye

In this case there is not not seen, provided the mean strates a U.S. to apportimemental and is califorated and maintained in accordance with the in instructions. The Discharger shall maintain a califoration and maintained or used for monitoring required by this Monitoring and Reporting Program. uses for monitoring required by this informating and responsing Program.

(aligning state take place downstream of management practices, as feasible to a construction of the program of

indusided.

"Total Chorine Residual monitoring is not required of non-chlorinated dischar "Calculated estimate using available meter reading information or visual estim

Table E-4. Annual Representative Monitoring Frequency Require

Duration of Discharge	f monitoring Frequency Requirem
Less than 20 minutes	
20 minutes to 60 minutes	One sample is required during the first 10 minutes of the complete of the comp
Greater than 60 minutes	One sample is required within the first 10 minutes, a set is required within the next 50 minutes, and a third sample required approximately within the last 10 minutes of the or as close to the end of the discharge as its feasible.

In its annual report, the Discharger shall

(a) Submit a copy of its site schematic submitted in its application for labeled representative monitoring locations, and

ATTACHMENT E - MONITORING AND REPORTING PROGRAM

NPUES PERMIT FUR UNINNING WATER STOTEM UISUNARISES ORDER WG 2014-0194-0WG VPDES NO. CAG140001

VI. REPORTING AND RECORDINE REQUIREMENTS

A. Self-Monitoring Report Requirements

1/Event or Year

- 1. Self-monitoring reports including compliant and no information shall be maintained in the Discharger upon request of State and Regional Water Board
- 2. Monitoring periods and reporting for all required according to the schedule in Table E-5 below. conditions in section II and Table E-1 of this MR

Monitoring Periods and Reporting Monitoring Sampling Frequency lanuary 1 thru

_	_	
**	3.	The Discharger shall arrange and summal tabular format. When electronic submittal provide for entry into a tabular format with electronically submit the data in a tabular

- 4. If no discharge occurred during the report report that there was no discharge
- 5. Authorized Dischargers shall maintain th Monitoring and Reporting Program and monitors any pollutant more frequently monitoring shall be included in the self-

B. REPORTING REQUIREMENTS TO STAT

- 1. Dischargers shall report to the State I reports to the State Emergency Resp the data to the Commission pursuant Community Right to Know Act" of 19
- 2. By March 1 of every year, all non-co contained in the Discharger's self-m be submitted to the State Water Bo monitoring results required in this h compliant discharge monitoring inf actions the Discharger has taken t shall also submit the annual disch section II.C of this Attachment.

ATTACHMENT E - MONITORING AND REPORT

ALO PERMITTON UNMANING MATER STOTEM GIOCENTICES ORDER WQ 2014-0194-DWQ NPDES NO. CAG140001

D. Appropriate field meter devices shall be selected consistent with accepted scientific practices and used to ensure the accuracy and reliability of measurements of monitored discharges. All devices shall be properly maintained and calibrated per manufacturer instructions and as necessary to ensure their continued accuracy.

MONITORING REQUIREMENTS FOR PLANNED DISCHARGES

A. Event Monitoring Requirements for Superchlorinated, Well development and/or

The Discharger shall monitor all superchlorinated discharges, all discharges from well The crisicality in the frames an supercritic matter ununaryse, an occuracy is from term development and/or rehabilitation activities, and individual discharges greater than 325,850 gallons (one acre-foot) for the constituents specified in Table E-1 and per the

Table E-1. Event Monitoring of Superchlorinated Discharges, Well Development

Chlorine, Total Residual 124	al Discharge Even Units	Sampling *	\$23,830 G
Volume ord ⁸	mgit	1/Event	Sample Type
Turbidity	Gallons Standard Units	1/Event	Estimate 1
	NTU	1/Event	Grab
rurbidity for Weil Development and/or Rehabilitation Only		1/Event	Visual Estimate
A handheid field meter shall be used, a	NTU	1/Event	Grab!

- Her shall be used, provided the meter utilizes a U.S. EPA-approved A harmed neit meet rain be used, provided the meter utitized a U.S. EPA-approved apportminimethol and is calibrated and antimated in accordance with the instructurer's instructions. The Discharge hash arrivant a calendar and maintenance log for each meter used for monitoring required by this scholaring and Reporting Program.
- used for municipal required by the authority and mephatry program.

 Sampling that take place downstream of management practices, as feasible. camping shall sake place obversarisatin or management practices, as reasons: Total chointer residual shall be monitored with a method sensitive to and accurate at a minimum level of 0.1 mg/L. Passe positives are acceptable if explanation of the cause is
- Focused:

 "Total Chlorine Residual monitoring is not required of non-chlorinated discharged

 "Cascutated estimate using available meter reading information or visual estimate
 pH monitoring is required for superchlorinated discharges only."

Table E-2. Event Frequency Requirements for Superchlorinated Discharges, Well Development and/or Rehabilitation Discharges to a Water of the U.S., and Discharges Greater than 325,850 Gallons

Duration of Discharge Less than 20 minutes	
20 minutes to 60 minutes	One sample is required during the first 10 minutes of the discharge plus a second sample is required within the last 10 minutes of the discharge discharge.
Greater than 60 minutes MENT E - MONITORING A	one sample is required within the first 10 minutes, a second sample is required within the next 50 minutes, and a third sample is required approximately within the last 10 minutes of the constitution of the

ATTACHMENT E - MONITORING AND REPORTING PROGRAM

Alternatives to Emergency Discharge discharging to a Atascadero Mutual Water Company Leak [waterway have FH Damaged Best Management Practices (BMP) Discharge Record been considered? Tank Overflow | Pressure Relief Valve Yes: No: Other [Discharge Date: _____ Operator Name: _____ Source Address/Location: Time: Conveyance System Entry Location Description of BMPs in place Discharged Into (√) (Check all that apply) Dechlorination Method Used: 五 GIS Asset# Address Is Water Body Dry? Type of BMPs used: (Location, Etc.) Lale, (If applicable) GuttestDop Luket Yes:□ No:□ Retention Bud Culment Name of Surface Water Body (River, Creek, Lake, etc.) Water Captured for Beneficial Use Volume (Gals): Comments: Type of Use: How long was discharge Volume of discharge: Comment: Hrs Min Effinent Water Quality Data (Prior to storm drain or waterway) Receiving Water Monitoring 50' Upstream of discharge 50' Downstream of discharge Annual Representative Monitoring? pH (If Super Clibrins ed Water) Vamil Imbility pH (Well Discharge) Virmal Imbility TotalChbrine TotalClibrin Temperature Includity (Viral estimate) Imbidity (NIU) Yes: No: CotalClibrine 핖 핖 Is it possible to access receiving water for monitoring/observations? If Start (Within first 10 Min.) Time: Middle (If over an hour) Time: No, explain. Yes: No: End (within last 10 min.) Time: Comment: Receiving Water Visual Observations Discoloration Visible films, Other (describe) Floating or Nuisance Impact to aquatic Erosion suspended Conditions sheens or matter coatings Attach photographs to above observations. Planned Discharge over 1 Ac Ft? Well Discharge? RWQCB Pre-Notified? Tank Discharge?

Approach

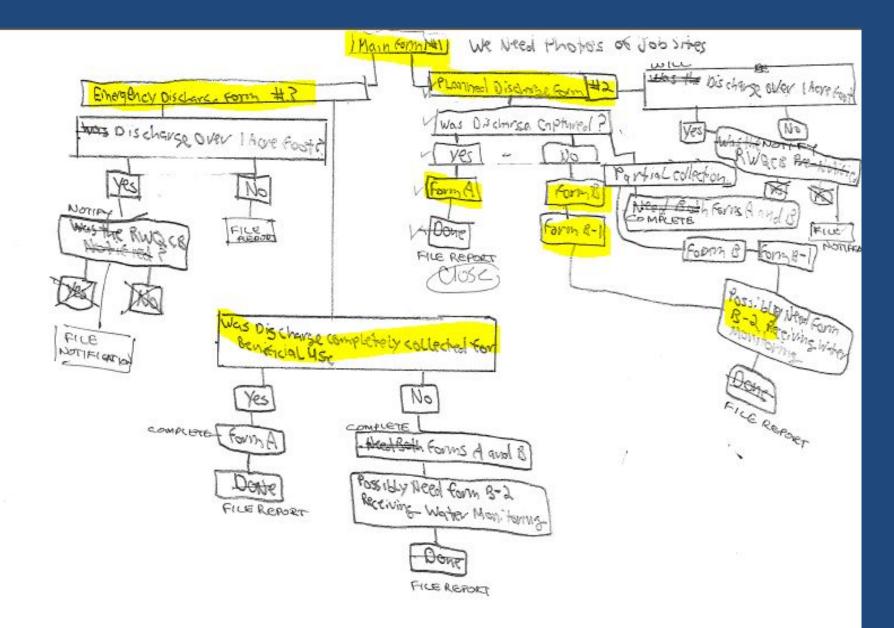
1) Document criteria that needed to be met.

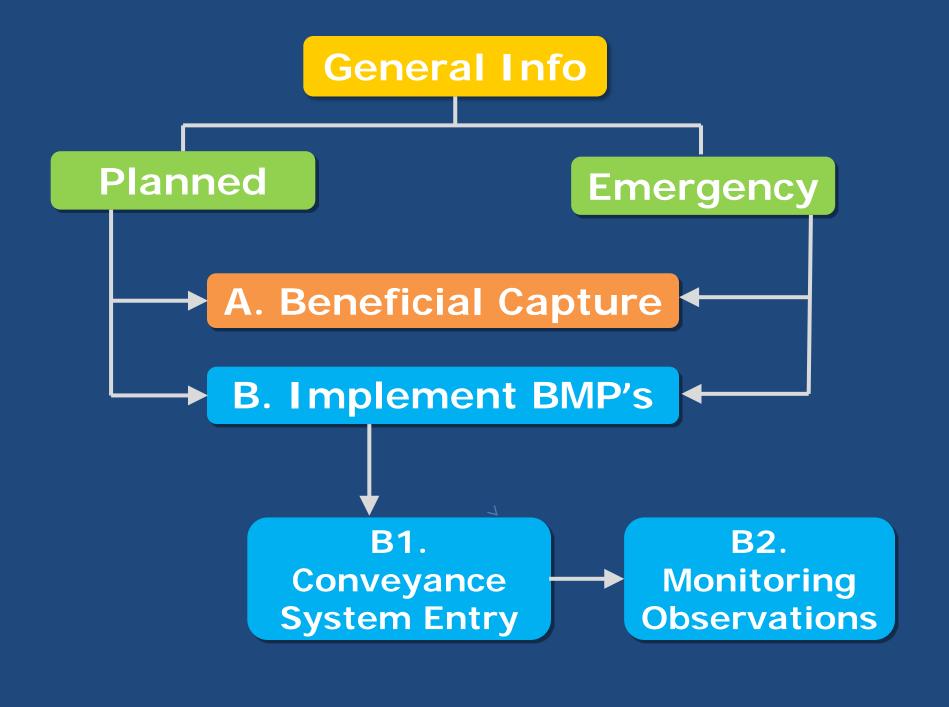
2) See if current work order management system could meet the demand

3) Research web-based form applications

Criteria

- ✓ Work on PC , Android, Apple
- ✓ Work in disconnected environment
- ✓ Pre-populated Drop-down lists
- ✓ Take photos or attach images
- ✓ User friendly
- ✓ Have conditional logic
- ✓ Support relational data



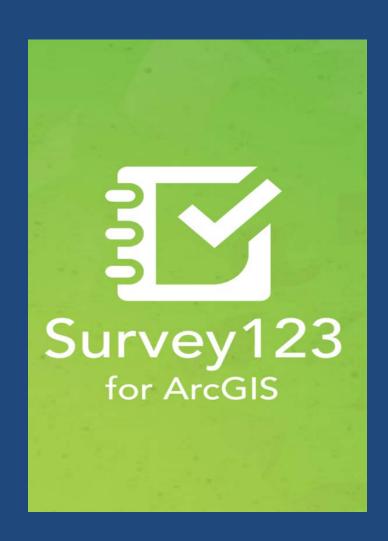


Survey123



- Design
- Collect
- Analyze

Demo



Access Your Data

Survey123 Dashboard

- View Survey
- Interact with data in map and table view
- Analyze data
- Export in various formats
- Collaborate with others

Access Your Data

ArcGIS Online

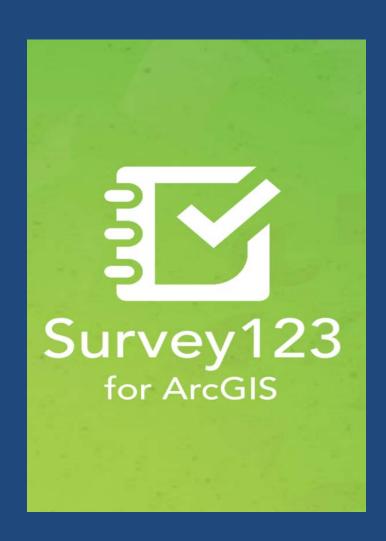
- A separate folder is created for each survey
- Located in My Content
- Open in Map Viewer
- Interact with map & table view
- Edit data
- Various export options

Reporting

NPDES Reporting

- Volume discharged to Waters of the U.S.
- Volume collected for beneficial Use
- Number of direct discharges to the Waters of the U.S. over 50,000 gallons
- Number of non-compliant Discharges

Demo



Resources

- http://survey123.arcgis.com/
- https://www.youtube.com/watch?v=0gGQbCuP RQI&feature=youtu.be
- http://survey123.esri.com/resources/XLSFormS upport/
- https://geonet.esri.com/groups/survey123
- https://www.epa.gov/npdes