

PROGRAM DESCRIPTION

Department of Natural Resources

HB Section(s): 6.225, 6.240, 6.245

DEQ - Water Protection Program

Program is found in the following core budget(s): **Water Protection Program**

1a. What strategic priority does this program address?

The Water Protection Program helps Missouri citizens thrive by managing natural resources to promote a healthy environment and economy by:

- Promoting environmental responsibility and resource stewardship.
- Enhancing services, information, and communication to improve customer experience.
- Modernizing community infrastructure, Strengthening workforce, and supporting economic development.
- Improving internal processes to better serve our customers.

1b. What does this program do?

The Water Protection Program works to protect surface water and groundwater, and promote safe drinking water for all Missourians by implementing standards and providing tools to assist water and wastewater facilities. The program implements regulations, issues permits, provides financial and technical assistance, conducts training and certification for operators, conducts monitoring, utilizes compliance assistance and enforcement tools, and implements strategies to restore impaired water bodies.

Nonpoint Source Implementation - Coordinates the State's nonpoint source pollution reduction efforts through technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring pursuant to Section 319 of the Federal Clean Water Act (CWA). Nonpoint source pollution in a watershed cannot be traced back to a single source, and can come from multiple sources within a watershed such as stormwater runoff, agricultural practices, land disturbance, and development activities, or ineffective on-site wastewater systems.

Public Drinking Water Sample Analysis - Provides funding for statutorily-required routine sampling for Missouri's community and non-community public water systems.

Water Quality Studies - Provides funding to strategically monitor a portion of the state's waters that have designated uses. These data inform decisions on how to protect and improve water quality.

CAFO Closures - This appropriation authorizes the expenditure of Concentrated Animal Feeding Operation Indemnity Funds for closure of certain lagoon structures placed under state control due to bankruptcy, failure to pay property taxes, or abandonment. When the Department determines that an owner has successfully closed a CAFO, all moneys paid into the fund by such operation are returned to the owner.

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1b. What does this program do? (continued)

The following table shows financial data for the budget units included in this form.

	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
	Actual	Actual	Actual	Current	Gov Rec
Water Protection Operations (78847C)	8,473,529	8,505,597	8,807,406	11,699,565	9,486,890
Water Quality Studies PSD (79405C)	4,334,352	3,817,920	3,497,574	12,397,312	12,397,312
Water Quality Studies Encumbrance (79405C)	n/a encumbrance authority must lapse			9,000,000	9,000,000
CAFO Closures PSD (79425C)	0	0	0	60,000	60,000
Total	12,807,881	12,323,517	12,304,980	24,156,877	30,944,202
Total excluding Encumbrances	12,807,881	12,323,517	12,304,980	24,156,877	21,944,202

(1)

(1) Included above is \$126,628 actual FY 2022 GR spending from the agency wide DNR PS budget unit related to FY 2022 supplemental pay plan.

The FY 2023 and FY 2024 budget includes appropriation authority of \$9,000,000 to be used for encumbrance purposes only for Water Quality Studies.

In March 2022, the Water Protection Program's Financial Assistance Center was realigned and shifted from the Water Protection Program to a new program under the Division of Environmental Quality and the Non-Point Source Unit was realigned and shifted from the Soil and Water Conservation Program to the Water Protection Program. Prior year actual (FY 2020 – FY 2022) and current year budget (FY 2023) data for Financial Assistance Center is included in the Water Protection Program Operations Core form. Prior year actual (FY 2020 - FY 2022) and current year budget (FY 2023) data for the 319 Unit is included in the Soil and Water Conservation Program Operations Core form. These changes are reflected in the FY 2024 budget request as this is the first opportunity to adjust the budget.

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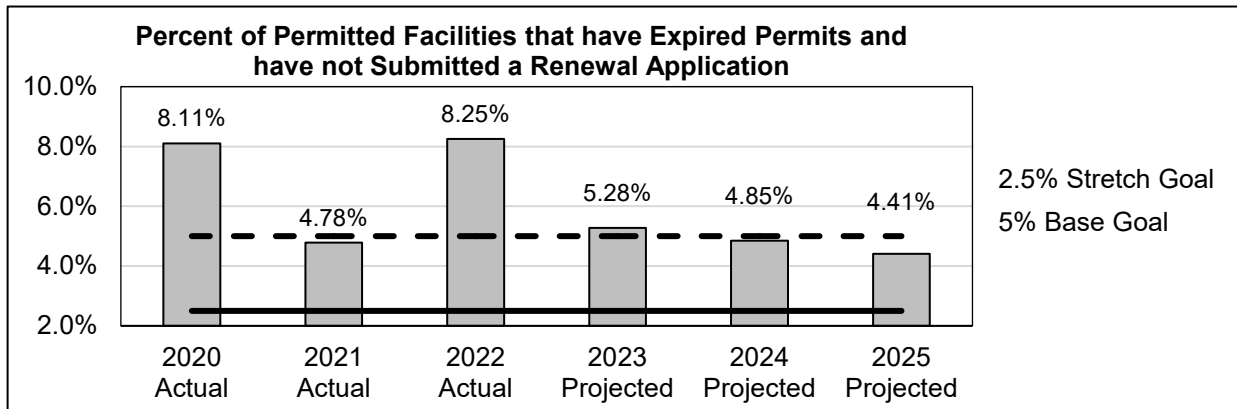
2a. Provide an activity measure(s) for the program.

Annual Count of Permit Renewals Processed

Type	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Projected	FY2024 Projected	FY 2025 Projected
Site-Specific	443	404	271	420	449	354
General	427	360	537	1,648	1,389	678
Total	870	764	808	2,068	1,838	1,032

These values do not include the number of modifications, terminations, applications for new permits, or denials. Site-specific permits and General Permit Covered Facilities (general permits) expire every five years; however, the number of permits expiring for these two major types of permits are not static from year to year. This results in some fiscal years having higher counts of expired permits versus other years with lower counts of expired permits. FY 2021 and FY 2022 permit renewals processed are lower due to increased vacancies and lower productivity due to training new permit writers.

Permitted Facilities that have Expired Permits and have not Submitted a Renewal Application - Significant Noncompliance Reduction



State Fiscal Year	Permits Evaluated	Expired Permits without Renewal Application
2020 Actual	7,241	587
2021 Actual	6,736	322
2022 Actual	6,692	552
2023 Projected	6,667	352
2024 Projected	6,642	322
2025 Projected	6,617	292

The Program is reaching out to permittees who have not renewed their permits, which reduces the rate of significant noncompliance. In other words, this metric shows the noncompliance rate associated with permittees who have made no attempt to renew their permit.

- In 2021, field staff worked with facilities to submit renewal applications during COVID-19 when field activities were reduced, resulting in a decrease in expired permits without a renewal application.
- In 2022, field staff time shifted back to core field work activities, reducing the number of staff working directly with facilities to submit renewal applications. This coupled with the higher percentage of site-specific and general permits that expired in 2022 resulted in a greater universe of expired permits without a renewal application.

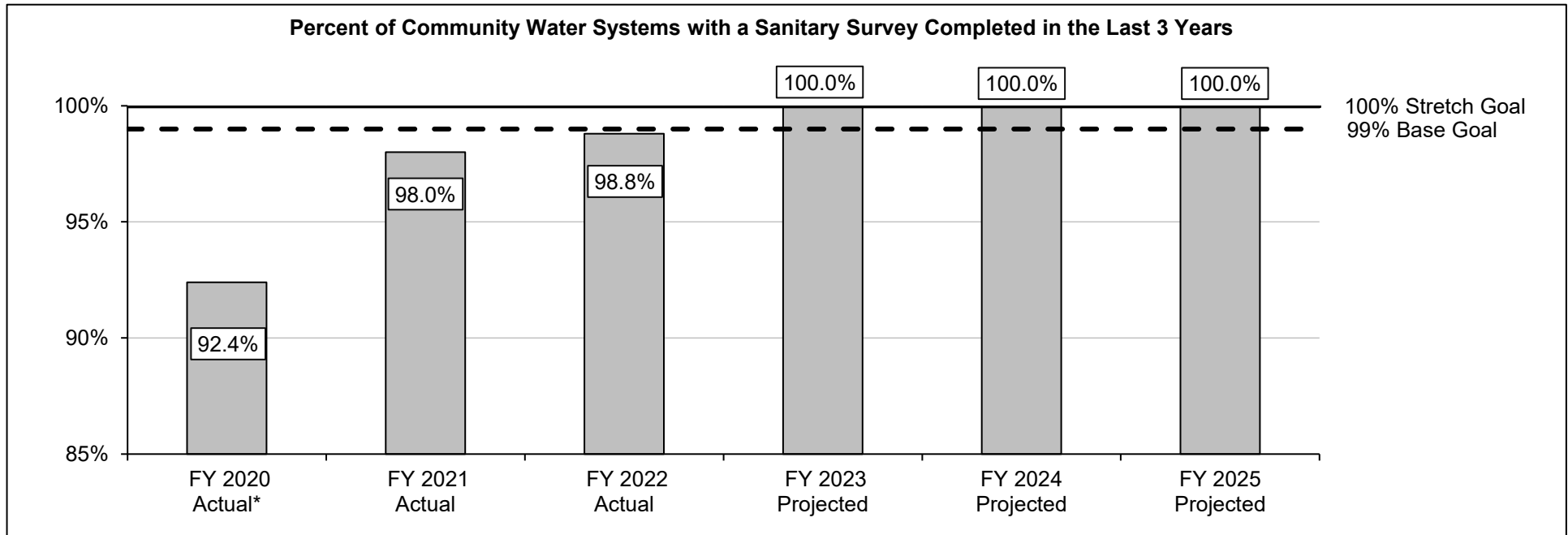
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2a. Provide an activity measure(s) for the program (continued).



* Impact of COVID-19 and social distancing requirements put sanitary surveys on hold for a 3 month period.

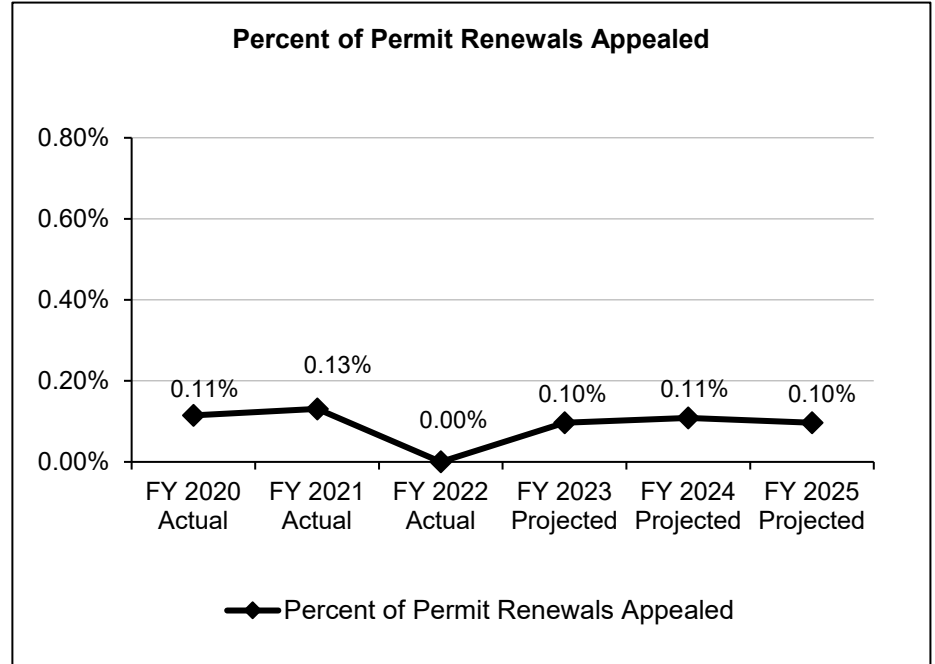
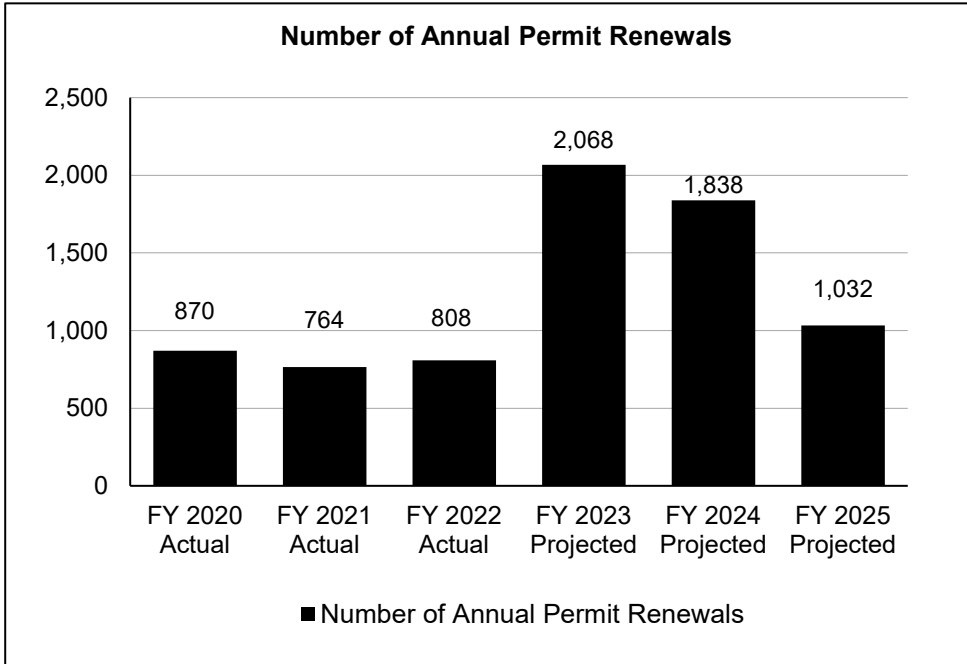
A sanitary survey is an assessment of a community water system's capacity to supply safe drinking water to the public. Each year, the Department performs a sanitary survey on about one-third of the state's 1,427 community water systems. This proactive public health measure is required by the EPA through the federal Safe Drinking Water Act.

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2b. Provide a measure(s) of the program's quality (continued).



Factors that cause variations in the annual number of permit renewals include the number of general permits and watershed-based permitting cycles. Reduction in the number of appeals is the result of increased permit quality and proactive engagement with permittees and stakeholders prior to issuance.

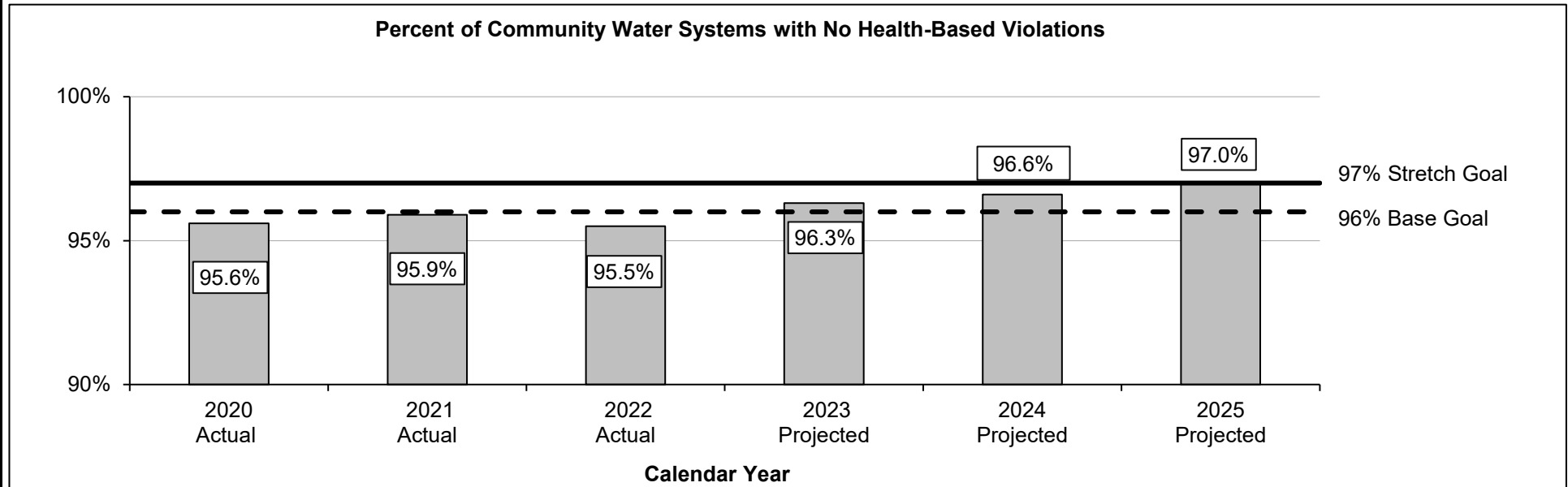
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2b. Provide a measure(s) of the program's quality (continued).



Health-based violations are exceedances of Maximum Contaminant Levels, failing to meet a treatment technique, such as failing to meet a turbidity or disinfection standard, or failing to address a significant deficiency. Each community water system must monitor for contaminants listed in the Safe Drinking Water Act. The monitoring schedules and sampling frequencies for the contaminants vary by source water type, population, if a water system produces water or purchases water, if the contaminant is considered an acute risk to public health or a chronic risk based on a lifetime exposure, etc.

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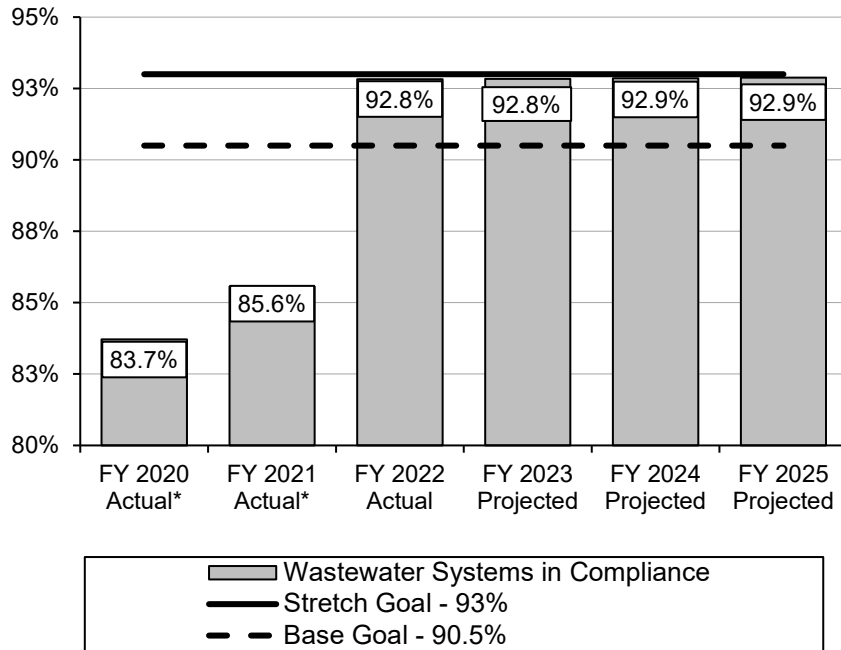
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2c. Provide a measure(s) of the program's impact.

**Wastewater Systems in Compliance
with Effluent Limitations**



The Missouri Clean Water Law requires any person operating, using, or maintaining a wastewater system or point source to obtain a permit and verify the discharge complies with the limitations contained in the permit to protect the beneficial uses of the receiving stream. Permittees must analyze discharges for the contaminants listed in the permit and submit results to the Water Protection Program on discharge monitoring reports. The program monitors compliance with effluent limitations and reporting requirements each quarter and notifies the permitted entity when significant noncompliance occurs. Significant noncompliance includes but is not limited to the following:

- Exceeding a permit limitation 4 out of 6 consecutive months
- Exceeding a permit limitation by 1.4 times for conventional contaminants and 1.2 for toxic water contaminants 2 out of 6 consecutive months

Effluent limitation violations which meet the definition of significant noncompliance most often indicate aging infrastructure that is no longer able to adequately treat wastewater. The condition develops more slowly than other violations. In many cases, constructed upgrades to the facility are required in order to resolve the violations. Construction upgrades require engineering and may take up to two years depending on the extent of upgrades required. If a municipality is involved, an additional 2-3 years are required to obtain funding.

To increase effluent limitation compliance, the Water Protection Program will target those entities in significant noncompliance for inspections. Team members will review discharge monitoring report (DMR) data to determine which permittees will benefit from improved operation of their facility and which should receive guidance on the process of developing and funding or their facility. Regional Office team members will work with facilities to improve operations using creative and cost effective solutions.

*COVID-19 was a major cause of reduced compliance in FY 2020 and FY 2021. The Department will continue to provide additional compliance assistance to facilities that have struggled with compliance.

State Fiscal Year	Evaluated Permits
2020	2,505
2021	2,597
2022	2,622

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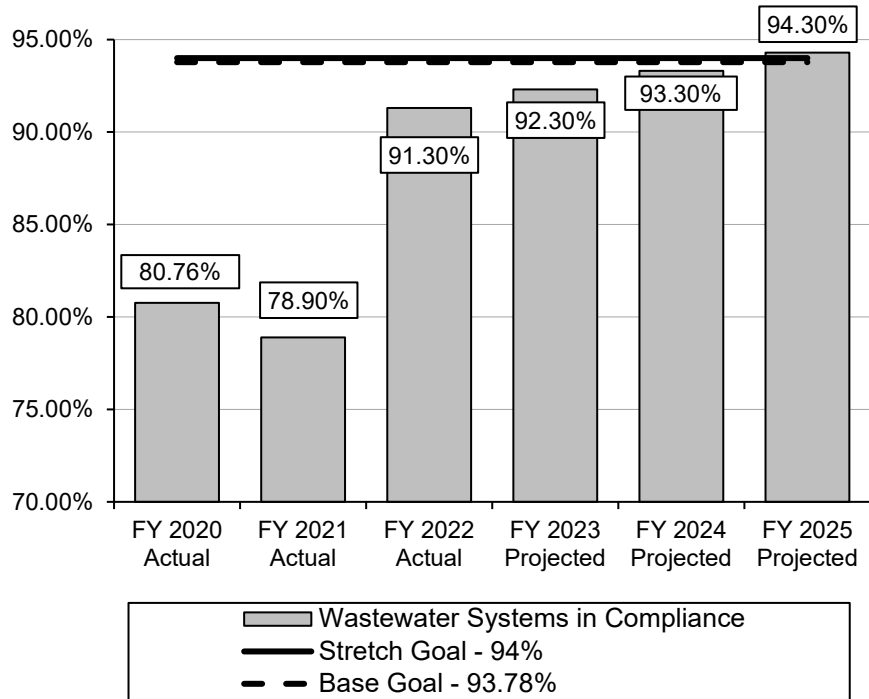
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DEQ - Water Protection Program

HB Section(s): 6.225, 6.240, 6.245

Program is found in the following core budget(s): Water Protection Program

2c. Provide a measure(s) of the program's impact.

Wastewater Systems in Compliance with Reporting Requirements



State Fiscal Year	Evaluated Permits
2020	2,505
2021	2,597
2022	2,622

The Missouri Clean Water Law requires any person operating, using, or maintaining a wastewater system or point source to obtain a permit and verify the discharge complies with the limitations contained in the permit to protect the beneficial uses of the receiving stream. Permittees must analyze discharges for the contaminants listed in the permit and submit results to the Water Protection Program on discharge monitoring reports. The program monitors compliance with reporting requirements each quarter and notifies the permitted entity when significant noncompliance occurs. Significant noncompliance related to DMRs is defined as failing to submit the report within 30 days of the due date.

To increase reporting requirement compliance, the Water Protection Program continues to use Record Reviews to identify and target those entities in significant noncompliance.

The Water Protection Program uses the auto-dialer monthly to make calls informing permittees their DMR is late and should be submitted immediately, before reaching significant noncompliance. Program team members provide region team members with lists of the permittees with the most reporting violations for enhanced compliance assistance.

Electronic discharge monitoring (eDMR) was implemented on November 9, 2020, that resulted in a temporary drop in one time submissions in FY2021. However, the new system is easier and reminds users of missing reports or parameters; therefore, submissions are improving again.

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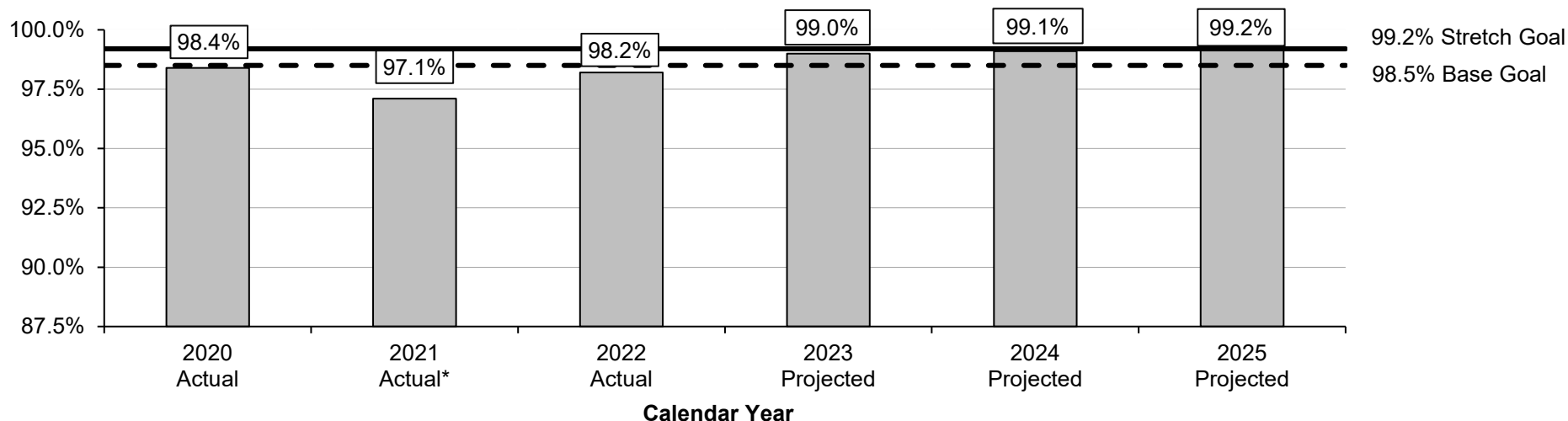
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2c. Provide a measure(s) of the program's impact (continued).

Population Served by Community Water Systems with No Health-Based Violations



* A public water system serving just over 100,000 customers received a health-based violation. The system returned to compliance the following month, but the violation resulted in approximately a 2% overall reduction in this percentage.

The Department is working to reduce health-based violations through compliance assistance efforts, operator training, performing sanitary surveys, reviewing designs for water systems, the use of circuit riders, and the community assistance portal. Health-based violations are issued when water sample results show the presence of contaminant(s) at numbers above a Maximum Contaminant Level (MCL) or when a treatment technique is not met. MCLs are set by the U.S. Environmental Protection Agency and are based on human health and safety standards. The treatment techniques are specified processes intended to reduce contaminant levels. Health-based violations include, but are not limited to, MCL and treatment technique violations of health-based standards related to violations of the groundwater rule, chemicals, stage 1 and stage 2 disinfection byproducts, bacteriological, radiological, and surface water treatment.

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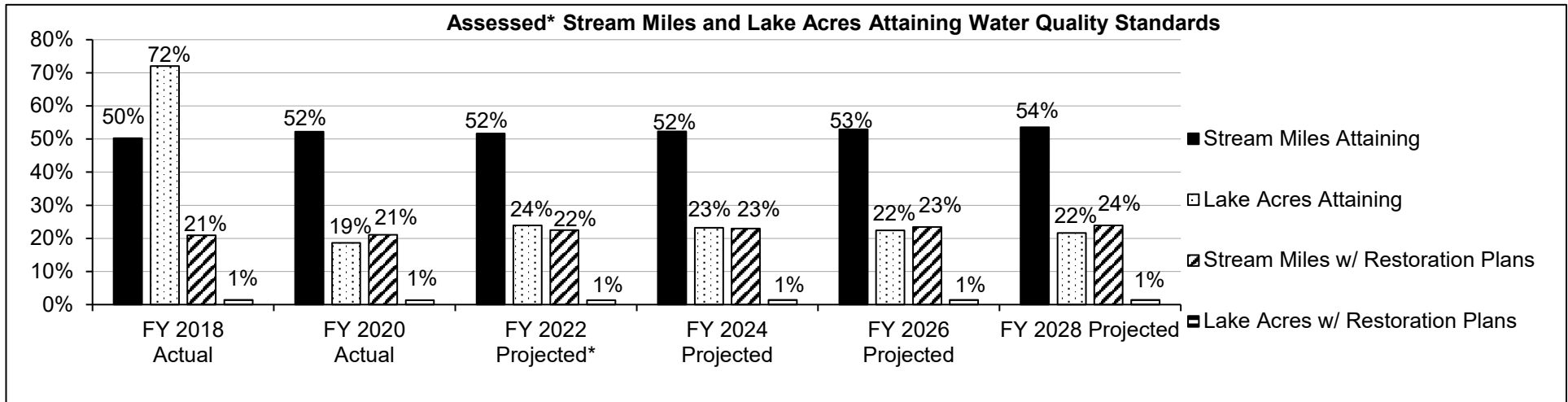
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2c. Provide a measure(s) of the program's impact (continued).



Base Goal: By 2026, increase the number of assessed stream miles and lake acres attaining water quality standards to 53% for stream miles and 22% for lake acres.

Stretch Goal: By 2028, increase the number of assessed stream miles and lake acres attaining water quality standards to 54% for stream miles and 22% for lake acres.

*Assessed waters are those that have sufficient data to conduct an assessment as required by Section 303(d) of the Clean Water Act.

FY 2020 Lake Acres Attaining shows a reduction because more lakes were listed impaired as a result of lake nutrient water quality standards approved by EPA in calendar year 2019. Beginning with the 2020 cycle and into the future, the number of lakes identified as impaired is likely to increase as the Department assesses more lakes. For the 2022 reporting cycle, the 303(d) List is still in progress, numbers are best estimate.

Water quality restoration plans are integrated, comprehensive strategies focused on restoring and protecting water quality in Missouri's impaired streams and lakes. Restoration plans may include Total Maximum Daily Loads (TMDLs), EPA approved 9-element watershed management plans, or other comprehensive alternative restoration or protection plans.

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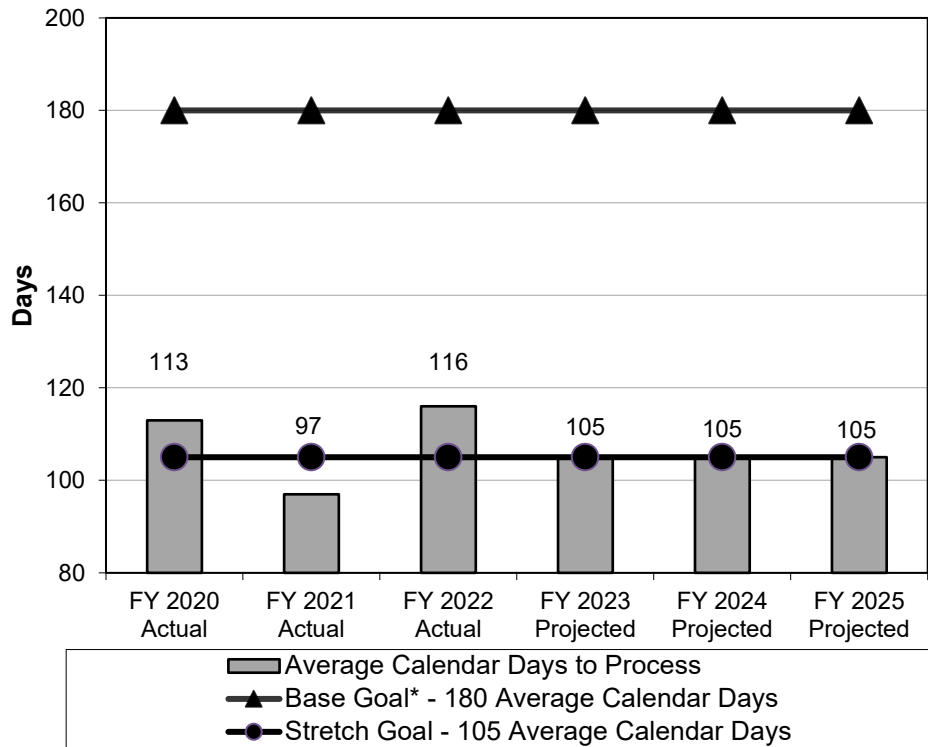
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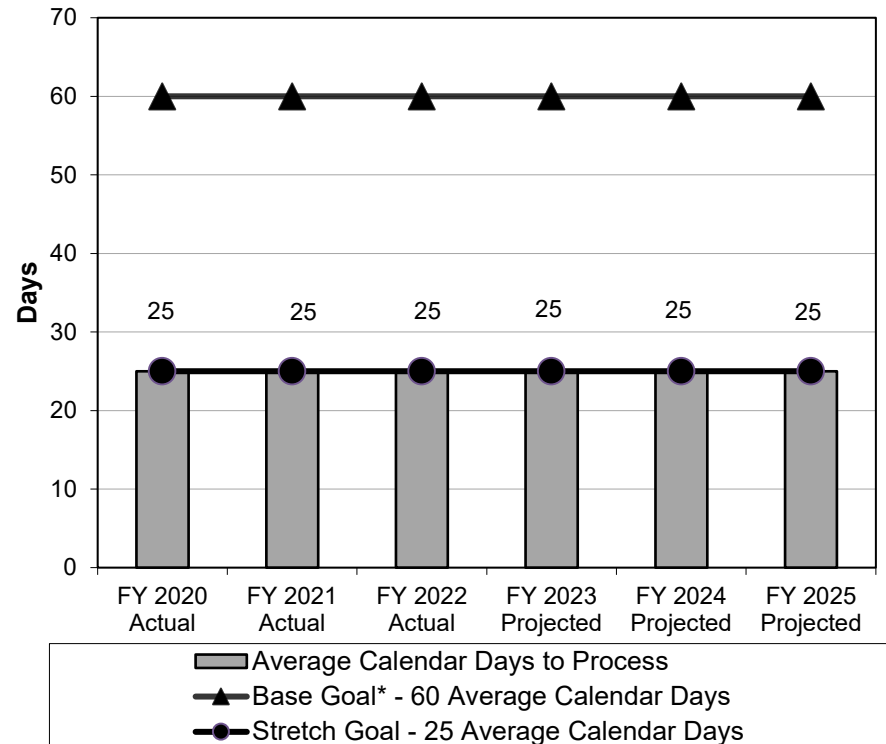
2d. Provide a measure(s) of the program's efficiency.

Processing Time for Construction Permits

Average Days to Issue New Wastewater Construction Permits



Average Days to Issue Sewer Extension Construction Permits



* Baseline goals are derived from statutory requirements.

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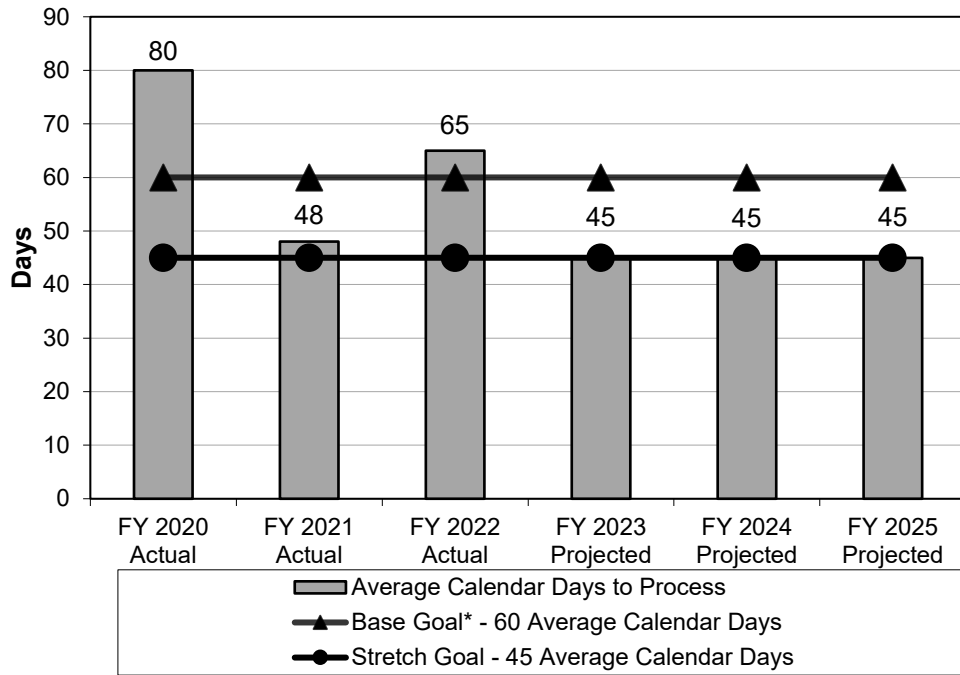
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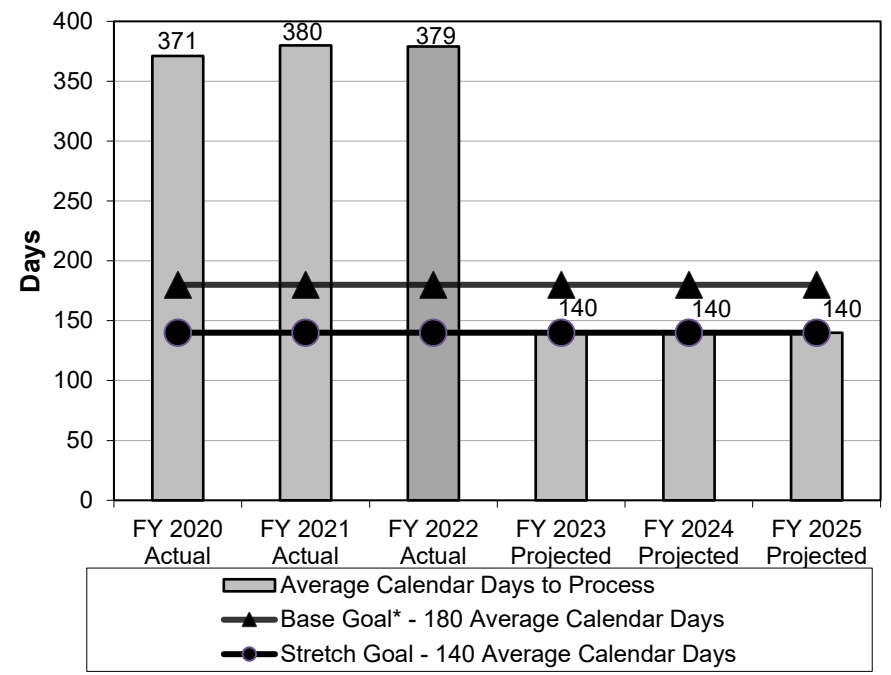
2d. Provide a measure(s) of the program's efficiency (continued).

Processing Time for Wastewater Operating Permits

**Average Days to Issue
General Operating Permits**



**Average Days to Issue
Site-Specific Permits**



* Baseline goals are derived from statutory requirements.

In FY 2022, a variety of factors including vacancies, application deadlines, and expiring permits impacted permit processing time.

Average processing times for site specific renewals will continue to be variable or high until the permit backlog is eliminated. This is because many backlog permits have been in process for hundreds of days so when backlog permits are issued this negatively impacts the average processing times as a whole.

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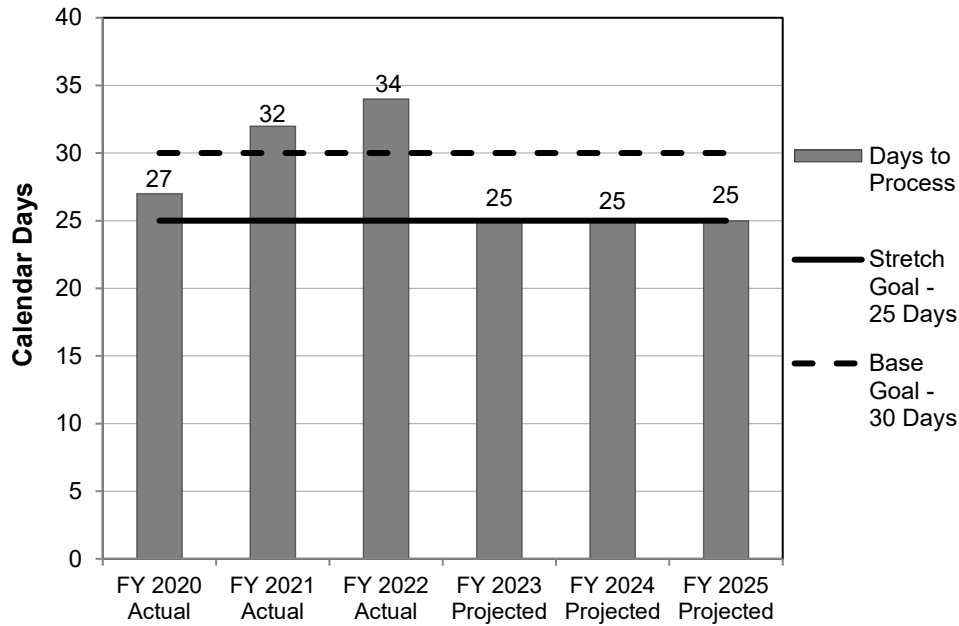
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2d. Provide a measure(s) of the program's efficiency (continued).

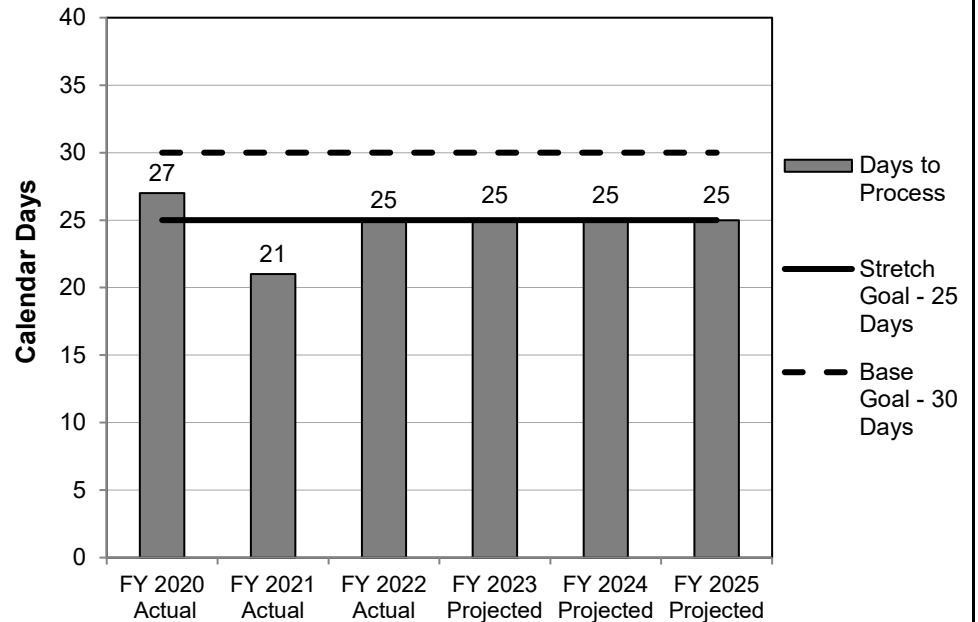
Processing Time for Drinking Water Permits

Average Days to Issue Drinking Water Permits to Dispense



All water systems are required to obtain authorization from the Department prior to construction, alteration, or extension of a public water system pursuant to Section 640.115, RSMo.

Average Days to Issue Drinking Water Construction Permits



All water systems are required to obtain authorization from the Department prior to construction, alteration, or extension of a public water system pursuant to Section 640.115, RSMo.

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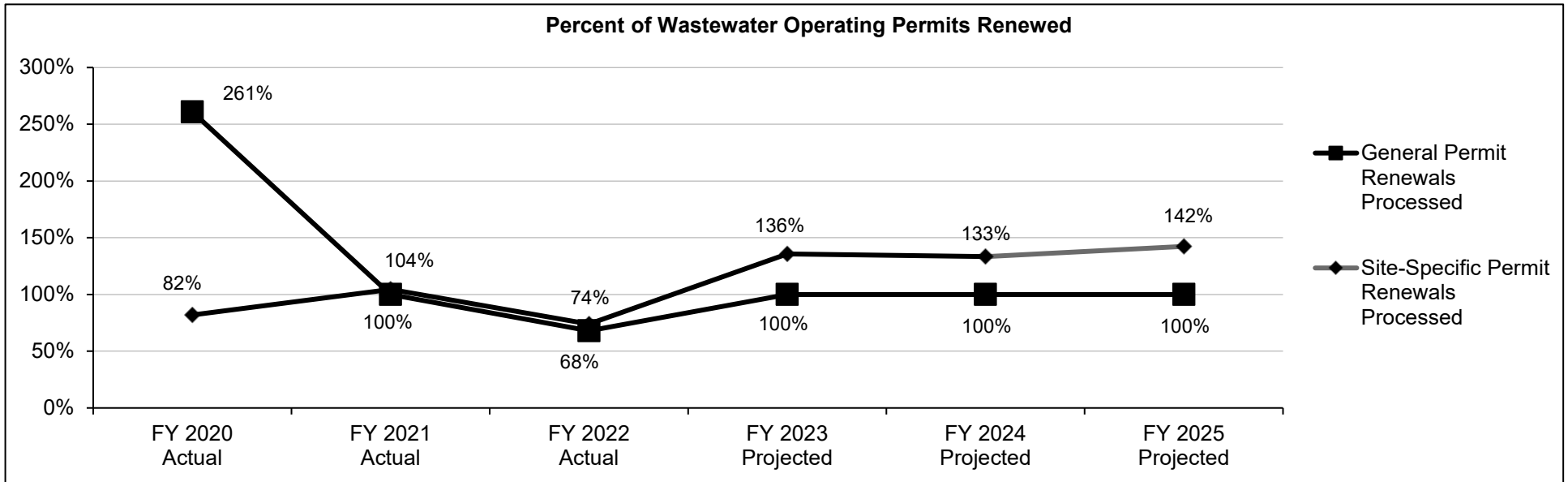
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2d. Provide a measure(s) of the program's efficiency (continued).



Percent of permits renewed equals the number of permits renewed divided by the number of permit applications received in that fiscal year, which may cause the percentage to exceed 100 percent.

Permits cannot be reissued before the expiration date. The Department has been reducing the backlog of permits since 2017, and anticipates eliminating the permit backlog by end of fiscal year 2025.

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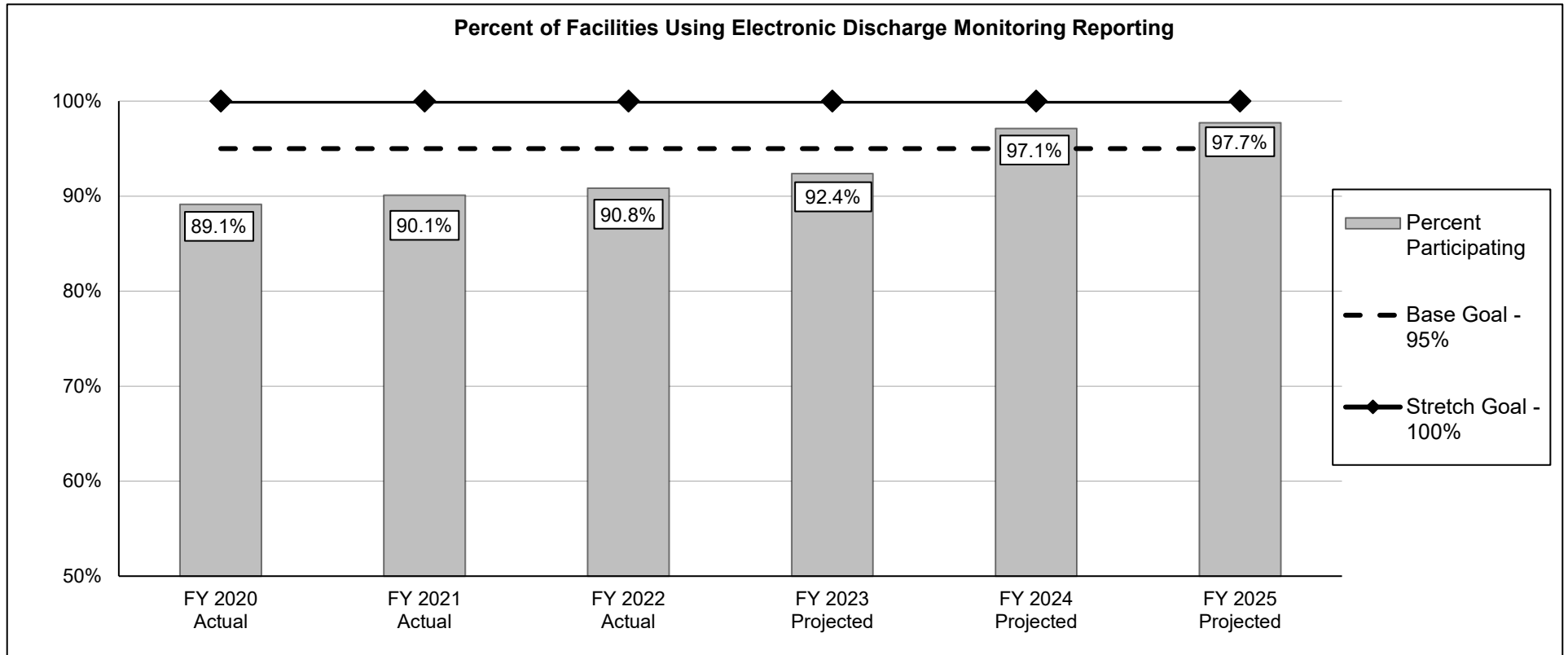
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2d. Provide a measure(s) of the program's efficiency (continued).



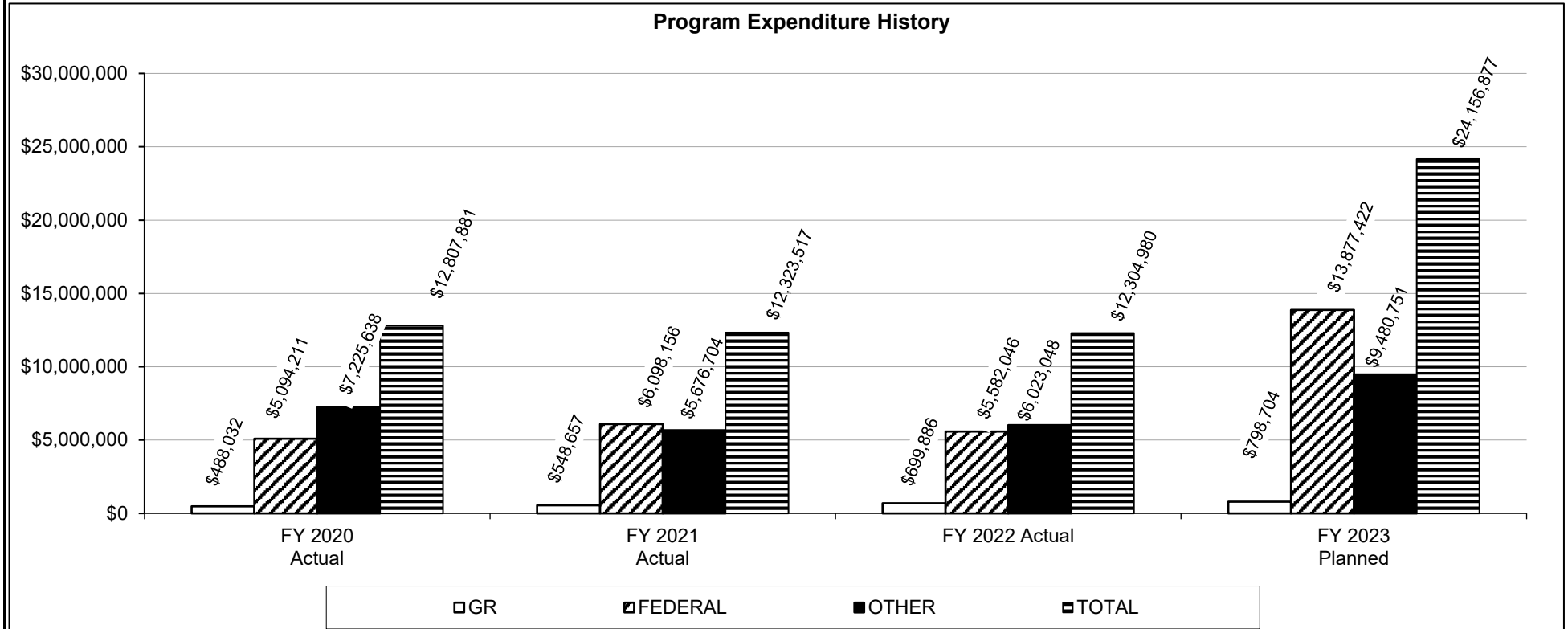
This is a measure of the number of National Pollution Discharge Elimination System regulated facilities that are required by the EPA eReporting Rule to submit discharge monitoring reports (DMRs) electronically known as eDMR. Until October 1, 2016, the use of eDMR was voluntary. After that date, all permits are required to use the eDMR system at renewal when submitting DMRs. With over 40,000 DMRs received by the program annually, the benefit of using eDMR is to streamline the submittal process, reduce transcription errors, and to have the ability to submit DMRs instantaneously.

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3. Provide actual expenditures for the prior three fiscal years and planned expenditures for the current fiscal year. (Note: Amounts do not include fringe benefit costs.)



Included above is \$126,628 actual FY 2022 GR spending from the agency wide DNR PS budget unit related to FY 2022 supplemental pay plan.

Financial data for FY 2020 - FY 2023 includes Water Protection Program and Financial Assistance Center (FAC) operating authority and pass-through authority for Water Quality Studies and CAFO Closures. The Water Infrastructure pass-through appropriations are located in FAC's budget forms. In many cases, pass-through appropriations have been provided to allow for encumbrance and payment of our commitments, which often span multiple fiscal years causing high unexpended balances. Not included in the data above is appropriation authority of \$9,000,000 for Water Quality Studies encumbrance purposes only, which must lapse. Otherwise, FY 2023 Planned is shown at full appropriation.

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4. What are the sources of the "Other " funds?

Natural Resources Protection Fund - Damages Subaccount (0555); Natural Resources Protection Fund - Water Pollution Permit Fee Subaccount (0568); Solid Waste Management Fund (0570); Underground Storage Tank Regulation Program Fund (0586); Hazardous Waste Fund (0676); Safe Drinking Water Fund (0679); Concentrated Animal Feeding Operation Indemnity Fund (0834)

5. What is the authorization for this program, i.e., federal or state statute, etc.? (Include the federal program number, if applicable.)

Title 42, Chapter 6A, Subchapter XII, Part B, § 300(g)

Title 33, Chapter 26, Subchapters I-IV

Section 319(h)

Section 604(b)

Section 104(b)(3)

Public Law (107-117)

USGS Organic Act of 1879

RSMo Chapter 644

RSMo 640.100 through 640.140

RSMo 640.100.3 and 640.120

RSMo 644.006 through 644.096 and

RSMo 644.125 through 644.150

RSMo 640.700 through 640.758

RSMo 640.130

Federal Safe Drinking Water Act

Federal Clean Water Act

Federal Clean Water Act

Federal Clean Water Act

Federal Clean Water Act

Recovery from and Response to Terrorist Attacks on the United States Act, 2002

USGS Survey Research and Data Acquisition

Missouri Clean Water Law

Missouri Drinking Water Law

Water Testing Required

Planning, Permitting, Inspection, Remediation, Technical Assistance, Enforcement, and Wastewater Operator Certification

Concentrated Animal Feeding Operation

Emergencies (Drinking Water Supplies) - actions to be taken - penalties

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6. Are there federal matching requirements? If yes, please explain.

Clean Water Act §319(h) Non-point Source Management Grant	40% State/Local (EPA)
Clean Water Act §604(b) Water Quality Management Planning Grant	100% Federal (EPA)
Drinking Water State Revolving Fund Capitalization Grant	20% State/Local (EPA)
Performance Partnership Grant funds for Water Pollution	\$438,127 State (EPA)
Performance Partnership Grant funds for Drinking Water	25% State (EPA)
Section 106 Special Monitoring Grant	100% Federal (EPA)
Small and Disadvantaged Communities Drinking Water Grant	45% State/Local (EPA)
Section 104 Wetland Program Development Grant	25% State/Local (EPA)
Environmental Information Exchange Network Grant	10% Federal (EPA)
Bipartisan Infrastructure Law; Gulf Hypoxia Program Grant	100% Federal (EPA)
Clean Water Act §319(h) Nonpoint Source Management Grant	40% State/Local (EPA)

7. Is this a federally mandated program? If yes, please explain.

EPA has delegated implementation of the Federal Clean Water Act and the Federal State Drinking Water Act to Missouri. This includes the Drinking Water State Revolving Fund.

The Federal Safe Drinking Water Act requires public drinking water systems to conduct routine chemical, radiological, and microbiological monitoring of the water. Section 640.100.3, RSMo, mandates that the state will provide this monitoring for these drinking water systems.

The Water Quality Studies appropriation funds mandates of the Federal Clean Water Act to report on water quality, identify impaired waters, and develop permits and strategies to restore and maintain water bodies.