

Data Delivery Update

Sean Raffuse

Anthony Kawamoto

Jason Giacomo

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Air Quality Research
Center

UC Davis

IMPROVE Steering Committee
Meeting 2021 (Virtual)



Current Status

Data are delivered through October 2020

Preliminary 2020 data complete in December

Redelivered final 2020 data in January

Why are we behind and what is our plan to catch up?

March 2020 – Complete shutdown

A Letter From Chancellor Gary S. May

March 20, 2020

Dear UC Davis Community:

Last night, as you know, Gov. Gavin Newsom issued a stay-at-home order for the entire state. The day before, [we announced we were suspending operations](#), meaning most of our employees should already be at home where the governor wants you to be, and where we want you to be, for the sake of your own health and to help limit the spread of the coronavirus. For that reason, there are no additional measures we need to take in response to the governor's order.

IMPROVE is Essential



IN REPLY REFER TO:

United States Department of the Interior
NATIONAL PARK SERVICE
Air Resources Division
P.O. Box 25287
Denver, CO 80225



March 31, 2020

TO WHOM IT MAY CONCERN:

The individuals listed below are personnel under contract with the U.S. National Park Service (NPS). These individuals perform an essential government function, as determined by the NPS and the Environmental Protection Agency (EPA), the primary funding source for this work. As this work is considered an essential government function, the individuals should be exempt from Yolo County's current Shelter in Place Order, for the purposes of carrying out this work, as indicated in Section 10.d of the Shelter in Place Order (released March 18). The essential work is only to include Minimum Basic Operations (Yolo County Press Release Section 10.g.ii) needed to ensure compliance with program and regulatory guidelines. These Minimum Basic Operations will be conducted at Crocker Nuclear Laboratory on the University of California campus. For all on-site work, all employees must comply with Social Distancing Requirements as defined in the Yolo County Order.

Jason Giacomo	Josh Grant	Nicole Hyslop	Anthony Kawamoto
Yifan Liu	Trinidad Padilla	Nick Spada	Sean Raffuse
Krystyna Trzepla	Yongjing Zhao	Erick Castillo	Steven Castillo
Tasha Coleman	Valerie Gugliada	Faris Jawda	Lindsay Kline
Alex Murrain	Yama Noorzai	Ilia Potanin	Gabriela Rico Monroy
Joann Tuman	Rong Yao	Dominique Young	Xiaolu Zhang
Bruno Debus	Andy Weakley	Ann Dillner	

Thank you,

John C. Vimont
Chief, Research and Monitoring
National Park Service
Air Resources Division

Minimal Operations

“...every single IMPROVE site that confirmed operation during the early COVID shutdowns received filters. Again, aside from human error, no samples were lost because we could not get filters out to the sites. I was extremely proud of that.”

- Anthony Kawamoto (Lab Supervisor)

From: Katrine A Gorham [<mailto:kgorham@ucdavis.edu>]

Sent: Thursday, April 2, 2020 1:33 PM

To:

Subject: UCD IMPROVE Operations: COVID-19 Response

To IMPROVE Site Operators and Supervisors:

As the situation surrounding the COVID-19 continues to develop, the UC Davis IMPROVE program has the following information.

Whether to continue IMPROVE sampling at the sites is up to the operating agencies and the guidance they receive from their organizations. Please let us know if your site shuts down.

UC Davis IMPROVE program operations:

1. We have a limited number of staff working on-site to continue providing sampling supplies to IMPROVE sites. We are trying to supply as many sites as possible, but shipments will be delayed and some sites may not receive samples. We will be reaching out to individual operators to provide more information soon.
2. As a result, there may be a significant delay in sending filter blue boxes out. Our sample receiving will continue as long as UPS, FEDEX, and the USPS continue their operations.
3. We will continue to provide support for site operators. It will be more efficient to call our Field Group cell phones and send individual emails provided below.

IMPROVE site sampling:

4. Please continue to change filter samples and ship blue boxes back to the lab as long as your supplies last.
5. Please continue to ship complete blue boxes with used or past date sampling supplies back to the lab using the printed shipping label in the blue box.
6. If your site is shut down, please keep one cartridge in each module to protect equipment from contamination and retain the entire blue box of samples associated with the cartridges that remain in the sampler until you reopen the site.

If you have additional questions, please contact us. We are closely monitoring this situation and will provide further updates as additional information becomes available.

Field group staff contact information:

Laboratory Safe Work Protocol in Response to COVID-19 Pandemic

Revision Schedule

04/02/20: Currently, this protocol only applies to Sample Handling Lab and Shop activities that facilitate shipping/receiving of filters to/from sites and maintenance to support critical site operations, and to the Chem Lab for XRF LN2 fills.

1. Description



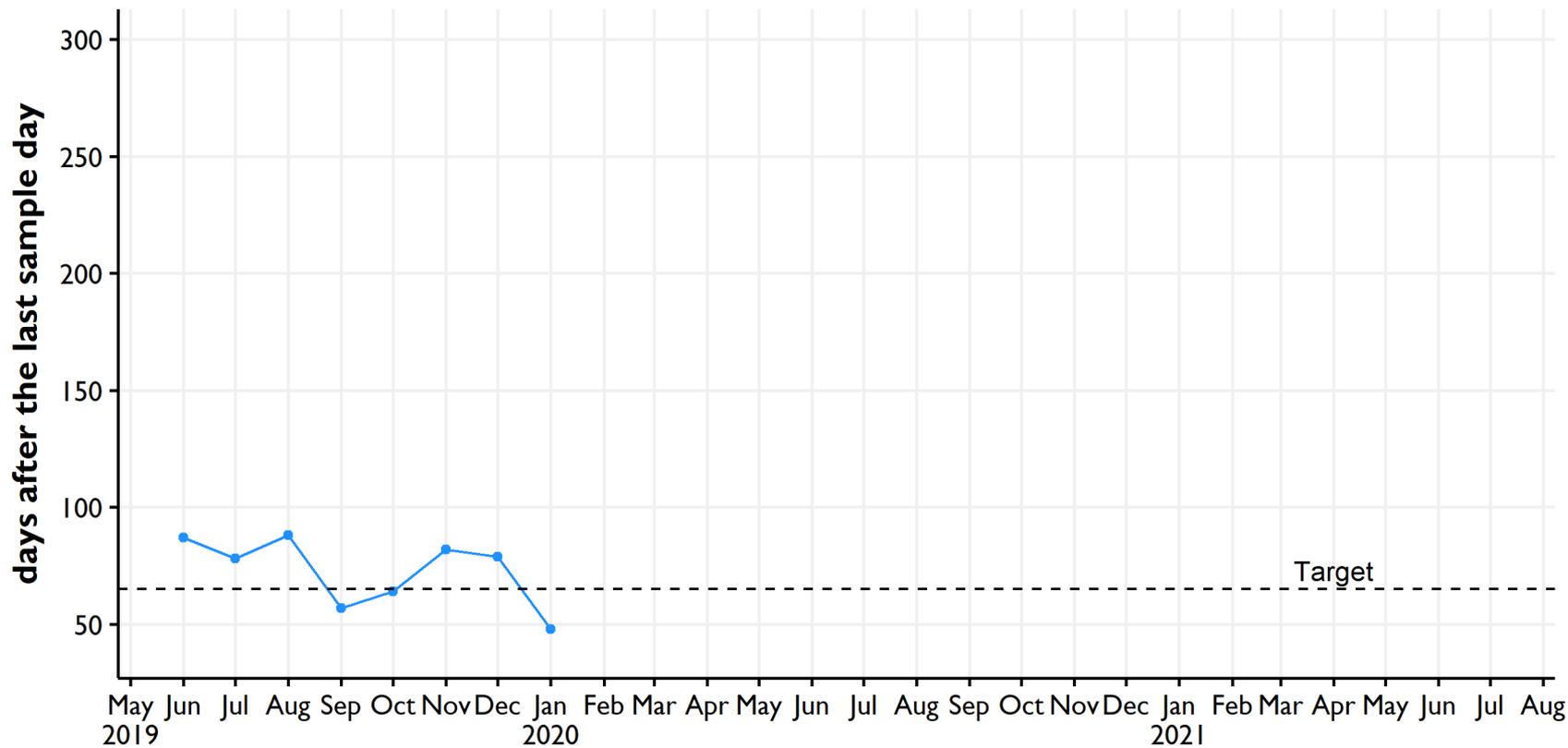
2.2. AQRC Lab Specific Procedures

2.2.1. Personnel assignments

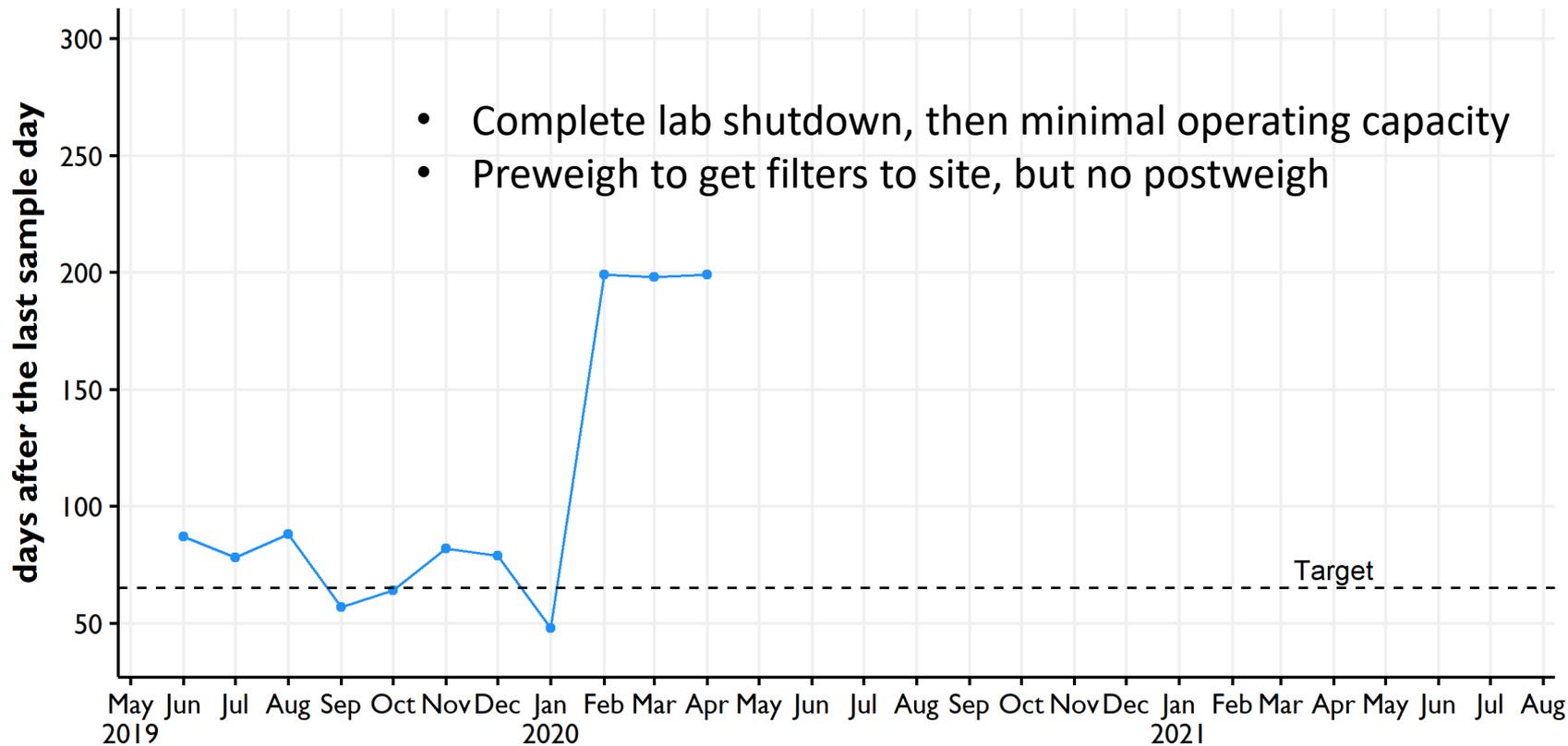
- 2.2.1.1. To assist with social distancing, a minimum number of employees will be allowed to work in the building at any one time. Only one person should be on the stairs at a time. Each lab will be limited according to the list below:
 - 2.2.1.1.1. Jungerman Hall 112 (sample handling) – limit of 1 person.
 - 2.2.1.1.2. Jungerman Hall 116 (XRF) – limit of 1 person.
 - 2.2.1.1.3. Jungerman Hall 120A (quartz carbon) – limit of 1 person.
 - 2.2.1.1.4. Jungerman Hall 208 (HIPS) – limit of 1 person.
 - 2.2.1.1.5. Jungerman Hall 115 (shop) – limit of 1 person.
 - 2.2.1.1.6. Jungerman Hall 120B (FTIR) – limit of 1 person.
 - 2.2.1.1.7. Jungerman Annex Conference Room – limit of 1 person.
- 2.2.1.2. As much as possible management will limit the onsite staff to one person per room to reduce exposure and cross-contamination risks.
- 2.2.1.3. Prior to accessing the building staff must be approved and briefed by management.
- 2.2.1.4. At least 72 hours will separate one person who works in a lab space from the next one to further reduce cross-personnel exposure risks.



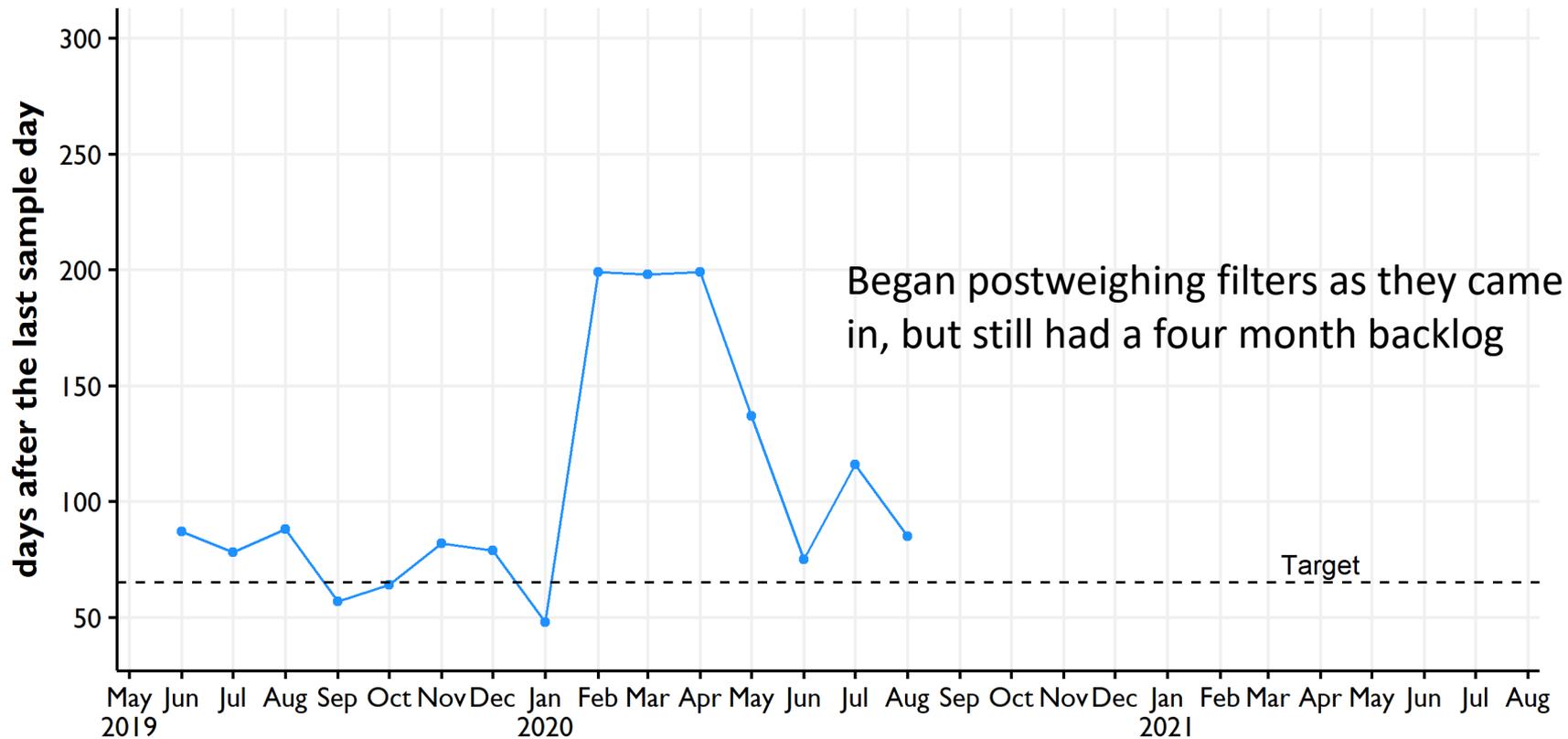
Postweigh Complete



Postweigh Complete

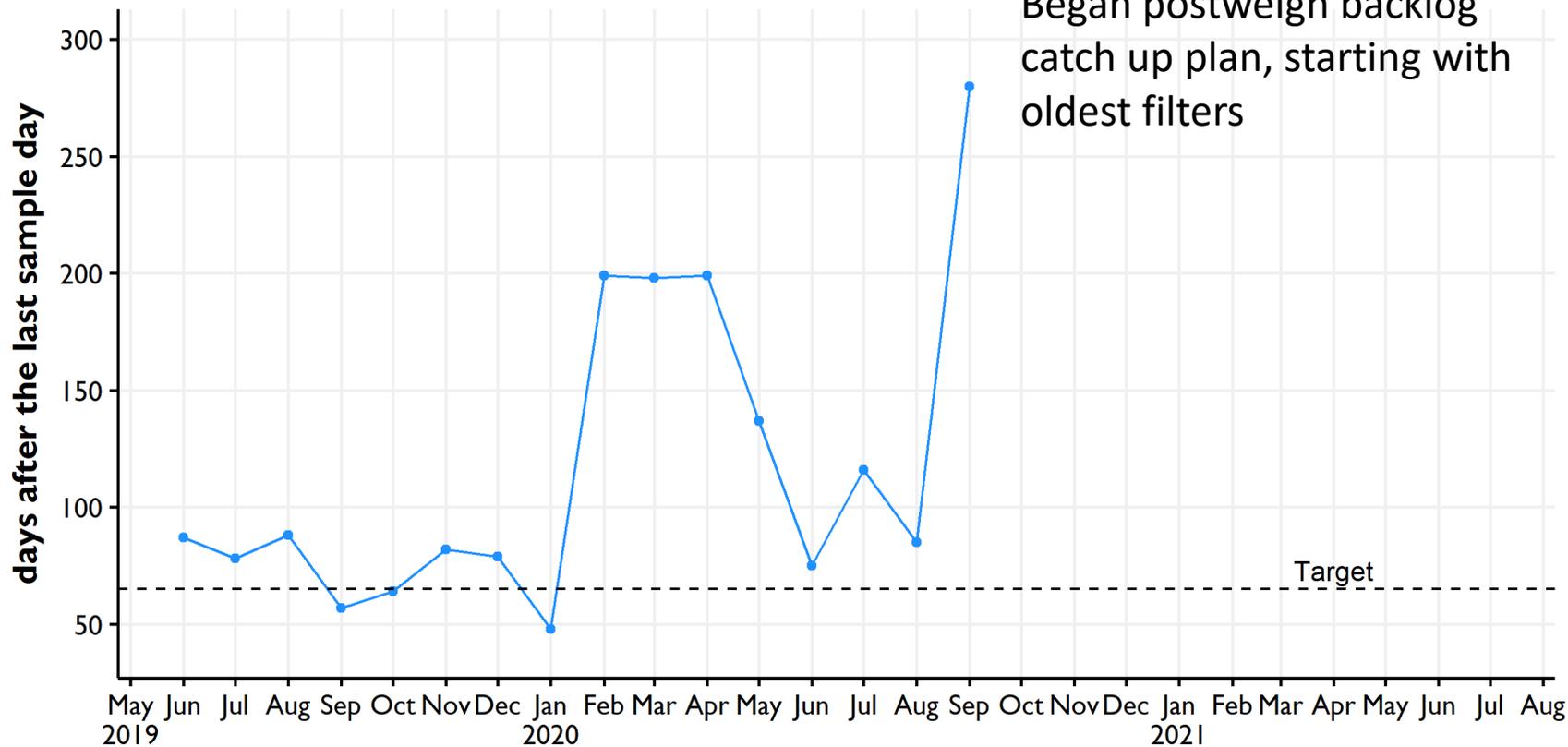


Postweigh Complete

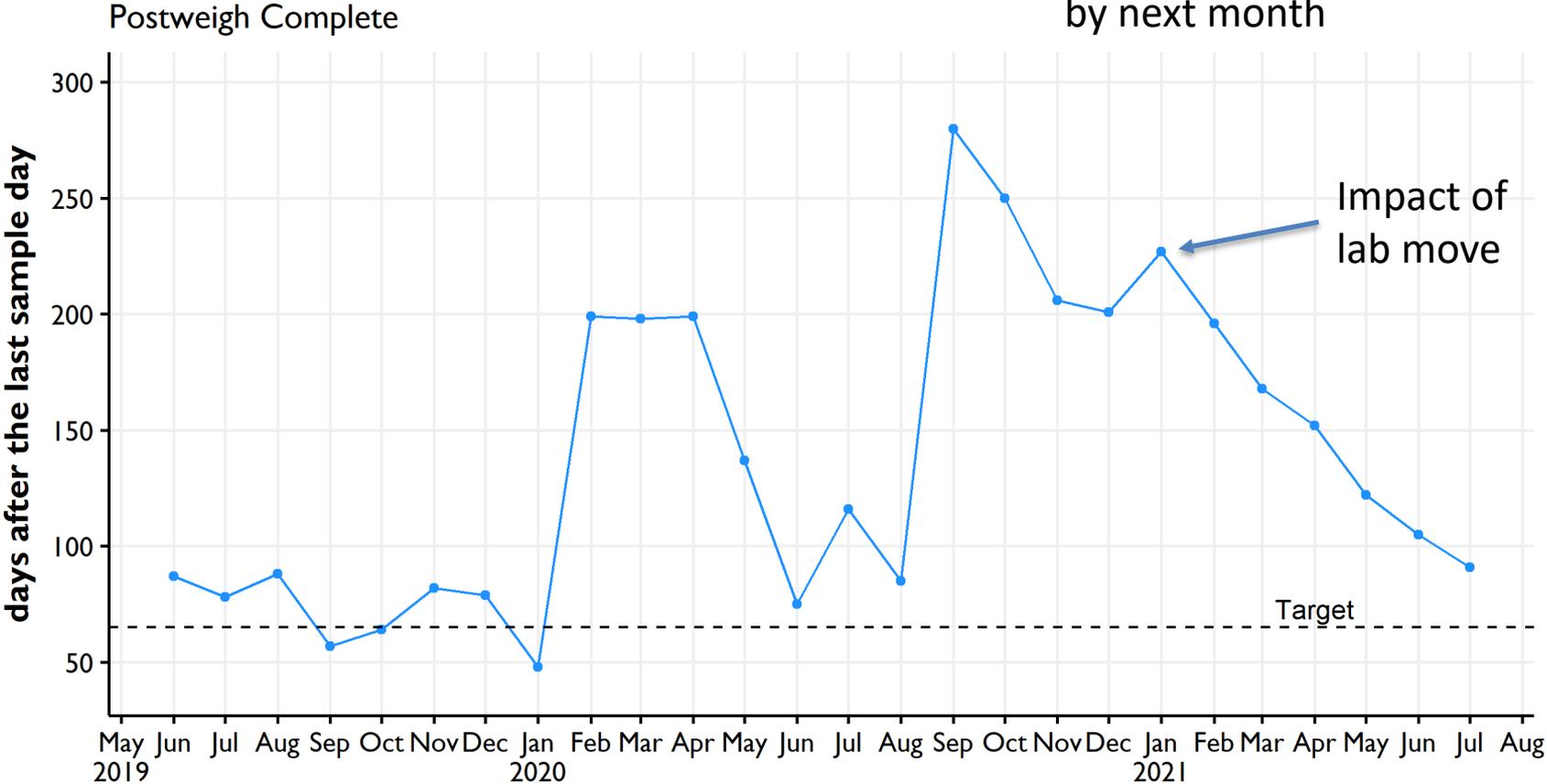


Postweigh Complete

Began postweigh backlog catch up plan, starting with oldest filters

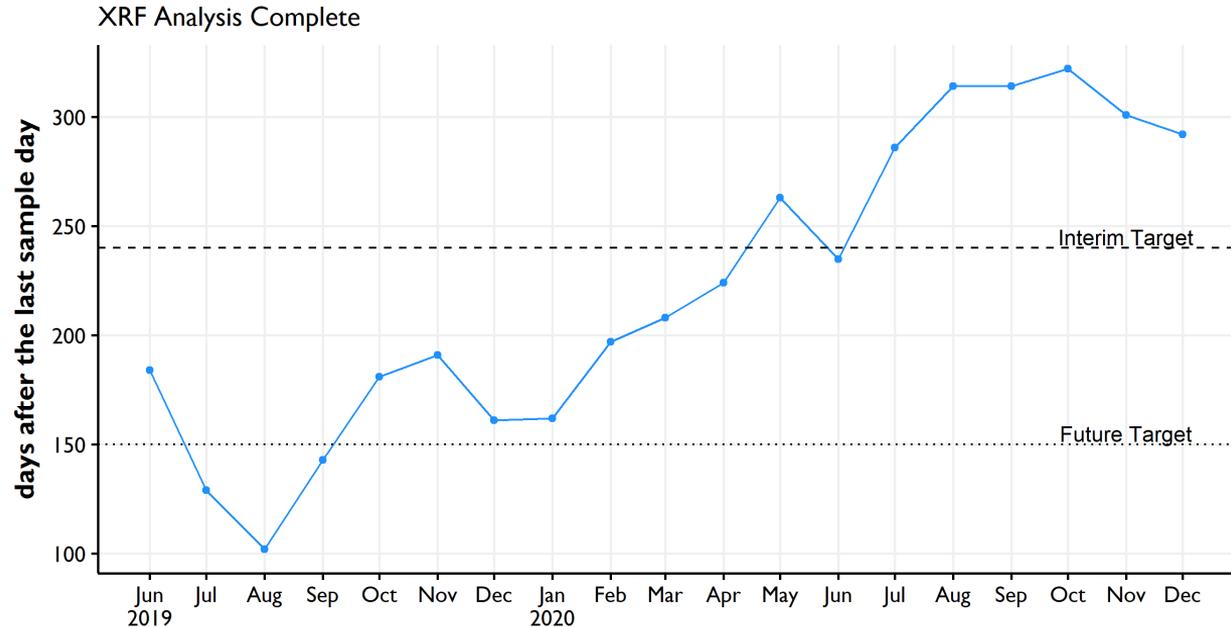


We should be at our target by next month



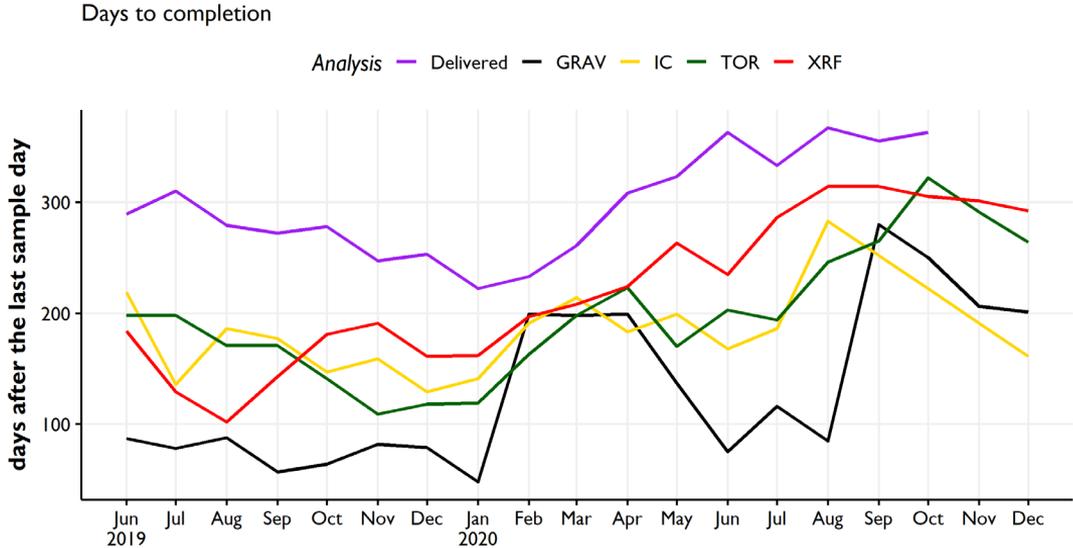
XRF Analysis

- No analysis for ~2 months
- Limited analysis resumed May 2020
- May-November instrument issues slow to resolve with limited on-site staff
- Lab move necessitated calibration procedures (~ 1 month)
- Repair delays due to supply chain/vendor issues



Delivery

- Validation takes ~5 weeks after all analyses are complete
- Interim goal: delivery 270 days after last monthly sample day
- Long-term goal: delivery 200 days after last sample day



Current Status

Data are delivered through October 2020

Preliminary 2020 data complete ~ December

Redelivered final 2020 data ~ January

With smooth sailing, we can make up about 1 week per month

It will take most of the next year to get to our goal of data within 200 days of the last sample day

Actions

- Established interim and final targets
- Initiated real-time tracking
- Perform weekly check-ins
- Made logistical changes
 - Monthly sorting

