PUBLIC SAFETY POWER SHUTOFF (PSPS) PREPAREDNESS BRIEFING

August 3, 2021





1	PSPS Decision-Making
2	Reducing PSPS Impacts
3	Resources and Support

PSPS Decision-Making



2020 vs. 2021 Distribution Model Improvements

2020 PSPS Models and Guidance

2021 PSPS Models and Guidance

Minimum Fire Potential Conditions

The minimum fire conditions (weather, fuels) required to consider a PSPS.

Large Fire Probability

A risk-based assessment of the probability of outages due to weather combined with the probability of large fires. It is the 2020 Outage Producing Wind Model (OPW) combined with the 2020 Fire Potential Index (FPI).

Black Swan Conditions

Even if the probability of an outage is unlikely, we may still turn off power if the weather and fuel conditions reach criteria where fast spreading, catastrophic fires are likely.

Event Criteria

PSPS criteria above met for at least 0.5% of PG&E's High Fire Risk Area (HFRA). Red Flag Warnings considered.

Catastrophic Fire Probability

A risk-based assessment of the probability of fire ignitions due to weather combined with the probability of catastrophic fires by using the 2021 **Ignition Probability Weather Model (IPW)** combined with the 2021 **Fire Potential Index (FPI).**

Catastrophic Fire Behavior

Even if the probability of an ignition is unlikely, we may still turn off power where **Technosylva** fire spread modeling indicates catastrophic fire behavior is possible.

Event Criteria

PSPS criteria above met for at least 0.25% of PG&E's HFRA. Red Flag Warnings considered.

Additional Vegetation Criteria Electric Asset Criteria

Locations where known high-priority trees and electric compliance tags are located based on guidance from the federal court.

Catastrophic Fire: A fire that is not easily controlled, has a rapid rate of spread and threatens lives and property.

2021 Distribution PSPS Guidance Overview



PSPS is only considered if <u>ALL</u> the minimum fire conditions are met

Minimum Fire Potential Conditions

The minimum fire conditions are the initial criteria for deciding a PSPS, after meeting <u>all</u> the following criteria in a high fire risk areas:

- Sustained wind speeds above 19 mph
- Dead Fuel Moisture 10hr less than 9%
- Dead Fuel Moisture 100, 1,000 less than 11%
- Relative humidity below **30%**
- Herbaceous Live Fuel Moisture below 65%
- Shrub (Chamise) Live Fuel Moisture below 90%
- Fire Potential Index (FPI) above 0.7

Note: High risk warnings from Federal Agencies (ex. Red Flag Warnings) are also considered

Fire Potential Index (FPI)

The likelihood of an ignition causing a large or catastrophic wildfire, assessing:

- Weather (wind speed, turbulence, temperature, vapor pressure deficit)
- Dead and Live Fuel Moisture
- Topography (terrain, slope, alignment)
- Fuel Type (grass, shrubs, forests, etc.)



...and if <u>ANY</u> of these three criteria are met, we turn off power for safety

Catastrophic Fire Probability

FPI is combined with the **Ignition Probability Weather (IPW)** to generate the **Catastrophic Fire Probability (CFP**_D) rating.

Outage and Ignition

An analysis of historical outage and ignition data on circuit segments to identify the ignition likelihood given an outage. IPW increases as winds increase.

 CFP_{D} above 9 | $CFP_{D} = FPI^{*}IPW$

Catastrophic Fire Behavior

Even if probability of failure is unlikely, we may still turn off power **if the fire behavior meets** <u>both</u> **of the following criteria of forecast Technosylva 8-hour fire simulations:**

Flame Length above **8 ft** Rate of Spread above **20 chains per hour**

20 ch/hr = 0.25 mph

Vegetation and Asset Hazard Considerations

Locations where known high priority asset hazards or trees that could strike power lines may require power shutoff. This would happen if severe weather was impacting an area where known high priority issues are located. PG&E will make every effort to clear these asset conditions and trees before a PSPS.

Where would power be turned off?

Power is turned of if the criteria are met for more than **25 2x2 km grid cells,** 0.25% of PG&E's High Fire Risk Area (HFRA).

For 2021, PG&E is replacing its Outage Producing Weather (OPW) model with Ignition Probability Weather (IPW) model.

IPW uses state-of-the-art machine learning models, local outage trends and 31 years of weather data to analyze the potential for an ignition from different types of system damage in a given weather event.

IPW weights data from recent years more heavily to predict system performance changes due to system hardening efforts.





We also review the transmission lines that traverse those areas where meteorology has identified severe weather conditions.



The chart below uses the last four years of hourly climatological weather data to show the number of potential PSPS events with the new 2021 models and guidance.



Reduced risk of catastrophic wildfires based on improved machine learning models

Slight increase in event count across lookback



Fewer customer impacts compared to 70th percentile

overstrike data presented during 4/20 CPUC workshop

Potential	2020	70 TH PERCENTILE	NEW: 2021	
Customer Impacts	PROTOCOLS	OVERSTRIKE	PROTOCOLS	
Event	~4.5 events	~6.5 events	~4.75 events per year	
Frequency	per year	per year		
Average Event Duration (excludes restoration time)	~35 hours	~39 hours	~39 hours	
Average Event	~120k	~140k	~100k	
Customer Count*	customers	customers	customers	
Largest Event	~350k	~370k	~360k	
Customer Count*	customers	customers	customers	

*Averages were calculated using all events from the 4-year historical baseline and the same number of events using the new criteria. All data is for planning purposes only and additional analysis is ongoing. The size and scope of actual PSPS events is dependent on weather.

Reducing PSPS Impacts



Operational Improvements to Reduce PSPS Scope

PGSF

PROGRAM	WORK PRIOR TO 2021	2021 TARGET	STATUS
Enhanced Weather Modeling Improved weather forecasting to more precisely target the location of severe threats	High-resolution weather modeling for more precise events	Improvements that align forecasting with areas of highest risk	Forecasting improvements complete
System Sectionalizing Devices installed to limit the size of outages	1,000+ distribution and transmission sectionalizing devices installed	279 devices installed	176 devices installed
System Hardening Making the electric system more resilient to severe weather threats with strong poles and lines	547 line miles completed	180 line miles hardened	71 line miles hardened
High Fire Risk Area (HFRA) Map Align mapping with risk of catastrophic fire from offshore winds and PSPS operations	NEW for 2021	Re-examine HFTD boundaries to create refined HFRA map	Completed first round of updates for 2021
Substation Microgrids Temporary generation at substations to support customers that are in safe-to-energize locations and impacted by transmission-level events	300+ MW set aside for energize substations	Pre-connect generation at 10 substations; Develop connection plans for 3 additional locations	9 locations complete
Distribution Microgrids Energizing "main street" corridors, central community resources and critical facilities	4 microgrids operational	5 additional microgrids	3 microgrids complete

Resources and Support



What We Heard from Customers and What We're Doing

What We Heard

PSPS Notifications: experienced inaccurate or inconsistent information in some cases

PSPS Restoration Time: customers requested more

accurate restoration times

Customer Resources and Support: build on partnerships with community-based organizations (CBOs) and explore other resource offerings

Medical Baseline: customers want additional support and information

What We're Doing

- Improved customer mapping data to ensure appropriate notification
- Refined and more concise messaging, drafted in consultation with customers; IVR message duration reduced approximately 24%
- Consistent information across all channels (e.g. notifications, website, social media)
- Improved methodology for forecasting restoration times at the local level
- Increased resources to help customers and communities before, during and after PSPS (e.g. Portable Battery Program Generator Rebate Program, Local food bank support)
- Engaged with 42 new CBOs in 2021, resulting in 23 additional information-sharing partnerships and 17 potential new resource partnerships*
- Allowing customers to self-certify as vulnerable to increase outreach support
- Conducted targeted acquisition mailing using propensity model to identify customers potentially eligible for Medical Baseline Program
- Quarterly trainings with In-Home Support Services program managers to promote Medical Baseline Program awareness
- Expanded Generator Rebate Program to serve vulnerable customers not eligible for the Portable Battery Program combined with targeted promotion of these programs

*12 agreements executed, 5 pending

What We Heard from Agencies/Tribes and What We're Doing

We continue to evolve our wildfire safety and PSPS programs based on lessons learned, new data and feedback received from our customers and communities.

What We Heard	What We're Doing
PSPS Portal: provide more consistent, timely and accurate info on the PSPS Portal and other channels	Adjusting the layout so files and updates are easier to find and standing up a PSPS Portal Working Group to solicit feedback
Customer Resources and Support: additional opportunities to partner with community-based organizations (CBOs)	Tracking suggestions and feedback from agency partners and conducting outreach to new CBOs
Community Resource Centers: continued coordination around locations, offerings and signage	Providing quarterly updates on status of CRC locations and soliciting further input from agency partners
Coordination with Telecom Providers: additional preparedness efforts re: phones still working during outages	Hosting telecom workshops to facilitate PSPS preparedness and sharing site specific impact analysis



Customer Support Resources

RESOURCE	2021 IMPROVEMENTS	Program Goal
Customer Notifications	 Address Alerts launched for non-account holders, tenants and mobile home park residents 16 languages available (13 in 2020) for all customer notifications, including Address Alerts 	All customers receive consistent, timely and accurate information about when power will be out in their preferred language, via multiple channels
Portable Batteries	 ~6,200 batteries distributed to low-income, Medical Baseline customers (~5,550 in 2020) ~1,400 distributed to people with disabilities and independent living needs (~1,000 in 2020) 	Batteries provided to all interested low-income Medical Baseline customers who either reside in HFTD areas or experienced 2+ PSPS events (~13,500 eligible) and support for AFN customers regardless of income
Community Resource Centers	380 locations identified (363 in 2020)	A comprehensive network of diverse, ADA-accessible resource centers developed in partnership with county and tribal agencies
Generator Rebate Program	 Rebate program launched for Medical Baseline customers residing in high fire-threat areas, customers relying on well water and small, essential businesses Targeted outreach to eligible customers 	Inform all customers in high fire-threat areas who may be eligible about the availability of rebates
Community-Based Organization Partnerships	 270+ partnerships in place to amplify messaging to customers with access and functional needs and provide in-language information 50 partnerships in place to provide support customers through portable batteries, hotel stays/food stipends, accessible transportation, food replacement and food delivery 	Support available for all impacted customers with Access and Functional Needs (AFN) through a network of community-based organizations
Food Resource Partnerships	 Partnerships with 23 food banks covering 38 counties and 22 Meals on Wheels covering 18 counties 	Meal replacement options during and after events in every county likely impacted by PSPS

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

New Interactive PSPS Planning Map Resource



We launched a new resource to help customers and public safety partners understand the impacts of potential PSPS outages in their communities.

Users are able to ——

- Enter address(es) or area into a search bar to view a popup with Past PSPS
 Event Count* and dates for the location
- View Past PSPS Event
 Count* as a heat map
- View Potential PSPS Area

*Past PSPS Event Count for 2019 and 2020.

This may be useful to answer

- Where in my community is more likely to be impacted by a PSPS?
- What has PG&E done to reduce the likelihood of PSPS in my community?
- What has PSPS looked like in different years?

Sample Potential PSPS Area



Please note: The information in this map is intended only to provide a general estimate regarding potential locations that may be impacted by a PSPS event should one become necessary. Conditions affecting a possible PSPS event can change quickly and the actual impact of a future PSPS event is uncertain.

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

Thank You

For more information, please:

- Visit pge.com/wildfiresafety
- Or contact us at 1-866-743-6589 or wildfiresafety@pge.com



Appendix



Historical Analysis of PSPS Events Based on 2021 Modeling

The chart below uses the last four years of hourly climatological weather data to show the number of potential PSPS events against the new 2021 proposed models and guidance.



Building Our 2021 Machine Learning Models

Through partnerships with external experts, we developed our 2021 machine learning models to give us a better understanding of historical weather events and to improve our weather forecasting.

This Model Uses:

- ~190,000 2x2km cells with data per cell, per hour, looking back over 31-years of high-res weather and fuels climatology data
- Over 100 trillion overall data points and 20 trillion in PG&E's service area
- Hourly weather data such as, temperature, relative humidity, wind speed, precipitation, pressure and dead and live moisture
- Data storage and processing via the PG&E-Amazon Web Services Cloud

How it Helps PSPS Decision-Making and Scoping:

- Determines the historical potential for ignitions from each analyzed weather event (Ignition Probability Weather - IPW)
- Assists with fire model development and calibration (Fire Potential Index - FPI)
- Data inputs improve fire spread modeling (Technosylva)
- Provides guidance for operation decision-making (PSPS models)





Fire Potential Index (FPI)					
Weather	Fuel Moisture	Topography	Fuel Model Type		
 Wind Speed Turbulence Temperature Vapor Pressure Deficit 	 Dead fuel moisture Woody live fuel moisture Herbaceous live fuel moisture 	RuggednessSlopeWind-terrain alignment	GrassShrubTimberUrban		

Key Model Components

- Historical satellite fire detection data set from Sonoma Technology Inc. that includes fire growth in California from 2012 - 2020
- Data from PG&E's 31-year weather climatology study
- Technosylva fuel moistures and granular fuel type maps
- Forecasting hourly probability of large and catastrophic fires
- Maximizing predictive skill with state-ofthe-art machine learning models
- Greater predictive skill than previous model confirmed by statistical evaluation and comparison of historical fires

Catastrophic Fire Probability Model

IPW and FPI are analyzed together to come up with Catastrophic Fire Probability (CFPd), which is what we use to determine whether a PSPS event is necessary.



OWNER RESOURCES AND TENANT EDUCATION

Providing mobile home park (MHP) and multiunit dwelling account owners with resources and information to share with their tenants on how to receive up-to-date PSPS information and helpful resources through:

- Annual Medical Baseline tenant contact info update letter and postcard to tenants
- Information kit that includes preparedness resources, online tools and safety tips to share with tenants and residents

NEW PSPS Address Alerts

Customers and non-account holders can be alerted in multiple languages about a potential PSPS event at any address that is important to them. Notifications are by call and text and available in 16 languages.

Outreach about this new tool includes:

- Automated phone call to individuals previously enrolled in ZIP Code Alerts
- Postcards and emails to 3rd-party list of renters who are not account holders
- Flyers shared with MHP and multi-unit dwelling account owners for lobbies and common areas
- Flyers included in tenant education kit
- Social media posts
- Reinforcement during CWSP webinars and Safety Town Halls
 pge.com/addressalerts

Planned Notifications Channels

- Direct notifications
- Portal
- Critical Infrastructure Lead
- Account managers

In response to telco feedback,

we more clearly identified the early notification "Advance" notifications and "Warning" notifications and offered a bundling option for restoration notifications.

PSPS Preparation

- Shared site-by-site data for each telco's portfolio for planning purposes. This includes:
 - PSPS likelihood (based on grid configuration, weather modeling and current criteria)
 - $\circ~$ historical data
 - \circ microgrid information
 - \circ simulated 10-year look back information
- Completed individual direct engagement to ensure site identification and contact information
- Refreshing the data and providing it to customers in Q3

Carrier Readiness

- We have been in regular direct individual and group dialogue to support carrier resiliency plans
- We have invited all carriers to participate in our Full Scale Exercises and Tabletop Exercises.
- CPUC Decisions:
 - Wireless: Decision 20-07-011, dated 7/16/20
 - Requires resiliency plans to be submitted within 6 months
 - Adopt 72-hour back up requirement in Tier 2/3 areas within 12 months
 - Update plans annually

• Wireline: Decision 21-02-029 2/11/21

- Requires resiliency plans to be submitted within 6 months
- Adopt 72-hour back up requirements in Tier 2/3 areas, including network equipment located in communities lacking sufficient wireless service coverage within 8 months
- Update plans annually

We're installing new sectionalizing devices to limit the number of customers impacted during a Public Safety Power Shutoff event.

Program By Year:

- 2018/2019: Automate existing sectionalizing to activate remotely
- 2019: 200+ devices added
- 2020: 600+ devices added; ~15,000 customers removed from PSPS scope
- 2021: 250 additional devices planned around boundaries of recurring PSPS polygons

Sectionalizing devices are installed at the edges of HFTDs to keep non-HFTD customers energized



Locations are approximate and may overlap.

Engaging with Customers in Advance of Potential Events

PG&E customers receive communications through a variety of channels. These include:



Letters, Brochures & Postcards



Wildfire Safety Webinars & Town Halls



Emails



Radio Ads

<u></u>	
√ —	
~ —	
~ —	
~	

Emergency Preparedness Resources



Television Ads



Tenant Education Kits



Social Media Posts

To identify which customers should receive outreach about additional resources before, during and after a PSPS, we leverage:

- Our enrollment data for the Medical Baseline Program
- Our low-income CARE and FERA programs
- Customers who self-identify for Vulnerable Customer status*
- Customers who select non-English as their preferred language for communications and notifications

*A customer who has a serious illness or condition that could become life threatening if service is disconnected for non-payment

This year, we are targeting our outreach efforts to focus on the locations that are more likely to be impacted by PSPS, while working on mitigation efforts that will lessen PSPS impacts in the long-term.

This outreach and support includes:

- Additional community-based organization informational and resource partnerships
- Additional food banks for local support
- County-specific webinars for locations that have historically seen higher amounts of events

In addition to PSPS notifications which all customers receive, **we provide additional notification and outreach** to customers in our Medical Baseline Program, including enrolled master meter tenants, and customers who self-certify for Vulnerable Customer status.



This includes:

- Hourly texts and calls until contact is made
- Doorbell rings if no positive contact is confirmed
- Leaving a door hanger if no contact is made

Medical Baseline Program Enrollment Count			
June 1, 2019	194,940		
June 1, 2020	198,532		
Current	259,058		

Account and Non-Account Holders Receiving Additional Notification				
Medical Baseline Program Master Meter Tenants	Non-account holders	3,389		
Self-certified Vulnerable Customer status	Account holders	6,371		

Public Safety Partner Engagement

We are continuing to engage with Public Safety Partners, listening to their feedback and working to identify areas where we can improve.

Outreach Channels	STATUS
PSPS Advisory Committee Obtain focused input from representatives of select county, city, tribal and state governments	3 out of 6 planned meetings complete
PSPS Regional Working Groups Forum for regional and tribal stakeholders to learn and share feedback on wildfire safety work and PSPS	10 out of 20 planned meetings complete
Wildfire Safety Working Sessions Meetings co-hosted with County and Tribal OES to plan for PSPS events	All interested counties/tribes briefed; 25 sessions held
PSPS Exercises Simulating a PSPS event with external agencies and stakeholders	3 out of 4 planned exercises complete
Additional PSPS Briefings & Workshops Ad hoc meetings and workshops	All interested stakeholders briefed; 200+ meetings held
PSPS Listening Sessions Forum for PG&E to listen to county, tribal and critical facilities' concerns and gather important feedback	All interested, PSPS impacted counties/tribes briefed; 35 sessions held

Tribal Coordination

We have a dedicated team that engages with tribes within our service area before, during and after PSPS.

In addition, we work with federal agencies with trust responsibilities to tribes and other state agencies.

TRIBAL SUPPORT

- Before and after a PSPS
 - Tribal Liaisons conduct ongoing tribal government outreach at the regional level

During a PSPS

Two Tribal Liaisons and five Cultural Resource Specialists act as agency representatives for tribes in scope to:

- Host dedicated tribal calls
- Answer questions and elevate issues
- Provide real-time event updates
- Coordinate support, as needed
- Embed in tribal EOC, if requested
- Coordinate GIS technical support, if requested

Summary of Tribes by PG&E Region

•	, 8		
REGION	FEDERALLY RECOGNIZED TRIBES	NON-FEDERALLY RECOGNIZED TRIBES	
NORTH COAST	32*	5	
NORTH VALLEY/ SIERRA	16*	9	
BAY AREA	1*	2	
SOUTH BAY/ CENTRAL COAST	1	8	
CENTRAL VALLEY	15	13	
*Includes tribes that cross multiple counties			
TOTAL	62	37	

Telecommunications Providers Coordination

We have **conducted outreach to providers of over 99% of telecommunications facilities** in our service area to discuss resiliency solutions and PSPS readiness.



This **99% represents the carriers with facilities** considered **more likely to be impacted** by PSPS.



The **remaining 1% of telecommunications facilities are considered less likely to be impacted** by a PSPS event and we plan to conduct outreach to them by September 1.

((ɣ))	REGION				
	NORTH COAST	NORTH VALLEY/ SIERRA	BAY AREA	SOUTH BAY/ CENTRAL COAST	CENTRAL VALLEY
Telecommunications Providers	16	17	11	11	20

Summary of Telecommunications Providers by PG&E Region

Based on feedback from agencies and customers, we are making the following updates:



Option of bundling restoration notifications for Public Safety Partners



Accurate notifications consistent across all channels



Refined and concise messaging for Public Safety Partners and customers



Address Alerts in via phone or text in 16 languages for customers and non-account holders We are collaborating with the Disability Disaster Access and Resources (DDAR) Program to provide qualifying customers with targeted outreach, personalized emergency planning support, energy needs assessments and in-event Public Safety Power Shutoff support. In-event support can include the following support based on customer needs:



Response to Resource Requests received through PG&E's call center



Hotel Accommodations and Food Stipends



Accessible Transportation

to hotels and Community Resource Centers

Portable Backup Batteries

ADDITIONAL SUPPORT IN 2021

We have also identified areas where we can improve our support and available resources for AFN customers. These include:

- Expanded relationships with 2-1-1 referral services
- Energy Savings Assistance (ESA) Program
- Our California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance (FERA) Programs
- Food Banks, Meals on Wheels and Grocery Delivery Services

NEW Customers that have an individual in the household with a serious illness or condition that could become life threatening if service is disconnected, but don't qualify for medical baseline can Self-certify for Vulnerable Customer status.

Providing Customers with Battery Storage Devices

We work to provide customers with the right sized battery to fit their needs. This includes providing customers with energy assessments ahead of sizing and battery delivery. In 2021, the goal is to deliver approximately 5,000 batteries. As of July 23, 2021, 20% of that goal has been achieved.

	2020	2021	2020 and 2021	
PROGRAM	BATTERIES DELIVERED	BATTERIES DELIVERED (as of 7/23/2021)	BATTERIES DELIVERED (as of 7/23/2021)	
Portable Battery Program (PBP)	5,569	644	6,213	2020 AND 2021 TARGET
California Foundation for Independent Living Centers (CFILC)	1,004	381	1,385	
Total*	6,573	1,025	7,598	11,500

Note: Approximately 765 batteries may not arrive until the fall due to global shipping delays and Covid-19 impacts affecting shipping ports in Southern China.

*Totals are incremental

**Performance in hours is driven by the customer's critical load (medical device and other loads plugged into the battery) and the size of the battery (Wh). PG&E ensures that the resiliency assessment that is completed before a battery is provided looks at medical device electrical needs. PG&E and the other Electric IOUs have engaged EPRI to help to understand the critical load needs of vulnerable customers and to ensure that battery solutions can meet this need.

Some of the measures included in this presentation are contemplated as additional precautionary measures intended to further reduce the risk of wildfires.

PG&E is offering eligible customers a rebate on the purchase of a qualifying product (generator or battery) to prepare for outages.

	PRIOR PROGRAM	NEW AS OF JUNE 2021
ELIGIBILITY	 PG&E Customers in Tier 2/3 HFTDs and dependent on water well pumps 	 Available to PG&E customers in Tier 2/3 HFTDs who meet one of the following criteria: Rely on well water pumping Are enrolled in the Medical Baseline Program Are a small/micro non-critical care essential business (i.e., Grocery Stores, Veterinarian Services, Urgent Care/Clinics, Food Banks)
REBATE STRUCTURE	 \$300 if eligible \$500 if eligible and on CARE/FERA program 	 Tiered based on retail pricing* Level 1: \$0 - \$500/product = \$300 Level 2: \$501 - \$1,000/product = \$500 Level 3: \$1,001+/product = \$1,000 *Each tier receives an additional \$200 kicker if on CARE/FERA
PRODUCT OFFERINGS	 Portable Fuel Generators 	 Portable Fuel Generators (well pump, SMB) Portable Backup Batteries (MBL) Note: Product must be in the <u>Qualified Product List</u>

For more information, visit:

pge.com/backuppower

In collaboration with counties and tribes, we have continued to build out and refine our CRC portfolio of ADA-accessible sites and offerings in 2021.



Solicited feedback on CRC sites from tribes and counties in our service territory



Refining and expanding our portfolio

of indoor and outdoor locations using feedback Target maintaining **90%** + of the 2020 event-ready sites

2020	2021
	109 INDOOR SITES
265 OUTDOOR SITES	271 OUTDOOR SITES



Reviewed portfolio of sites for gaps and opportunities for improvement



Continue COVID-19 mitigation measures and adjust with state and local guidelines