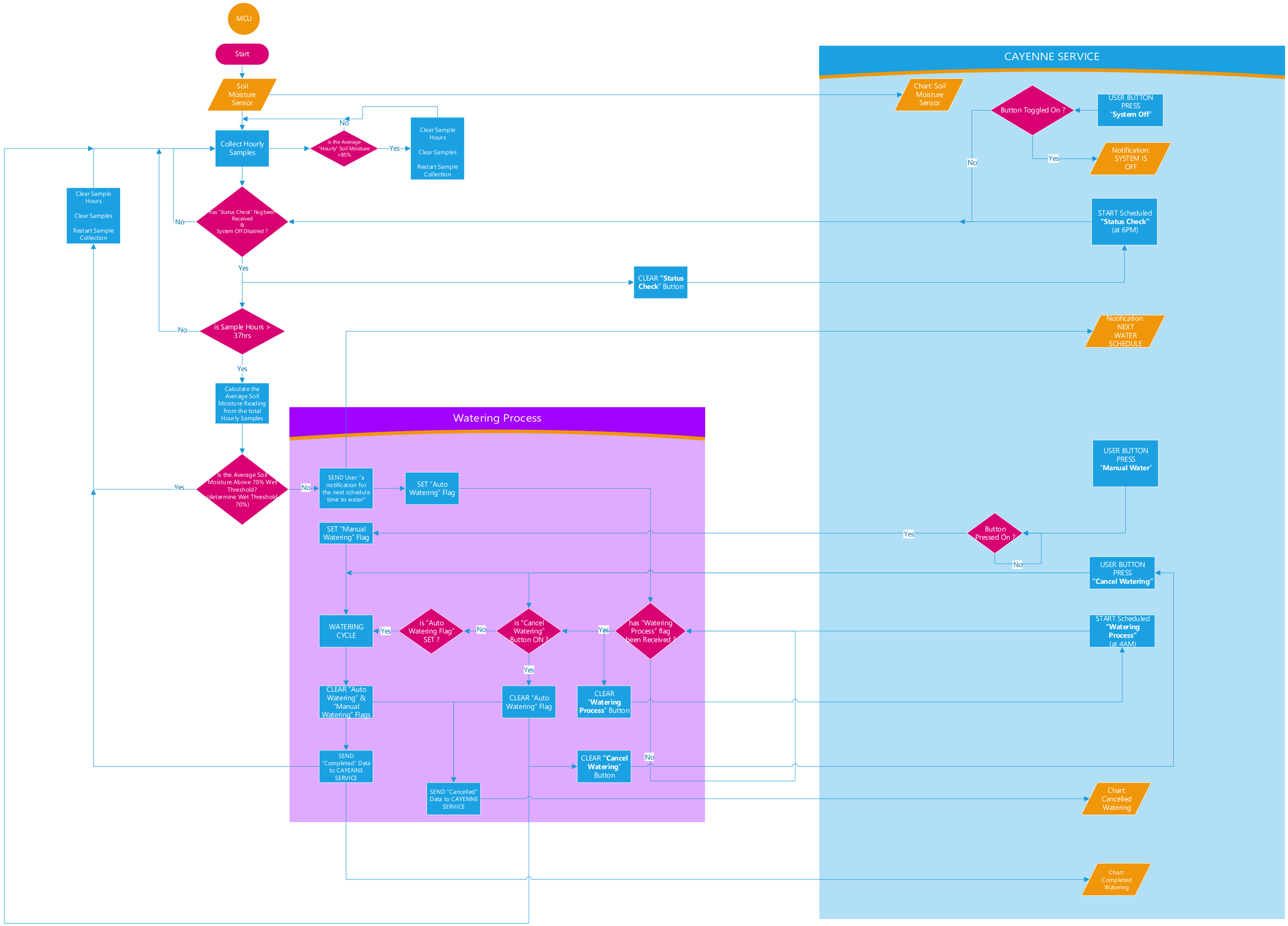
MCU
Start
Soil Moisture Sensor
Collect Hourly Samples
is the Average "Hourly" Soil Moisture >85%
No
Yes
Clear Sample Hours
Clear Samples
Restart Sample Collection
Clear Sample Hours
Clear Samples
Restart Sample Collection
has "Status Check" flag been Received & System Off Disabled ?
No
Yes
CLEAR "Status Check" Button
is Sample Hours > 37hrs
No
Yes
Calculate the Average Soil Moisture Reading from the total Hourly Samples
Is the Average Soil Moisture Above 70% Wet Threshold? (determine Wet Threshold 70%)
Yes
No
Watering Process
SEND User "a notification for the next schedule time to water"
SET "Auto Watering" Flag
SET "Manual Watering" Flag
WATERING CYCLE
Yes
is "Auto Watering Flag" SET ?
No
is "Cancel Watering" Button ON ?
Yes
has "Watering Process" flag been Received ?
Yes
No
CLEAR "Auto Watering" & "Manual Watering" Flags
CLEAR "Auto Watering" Flag
CLEAR "Watering Process" Button
CLEAR "Cancel Watering" Button
SEND "Completed" Data to CAYENNE SERVICE
SEND "Cancelled" Data to CAYENNE SERVICE
CAYENNE SERVICE
Chart: Soil Moisture Sensor
Button Toggled On ?
USER BUTTON PRESS "System Off"
Yes
No
Notification: SYSTEM IS OFF
START Scheduled "Status Check" (at 6PM)
Notification: NEXT WATER SCHEDULE
USER BUTTON PRESS "Manual Water"
Button Pressed On ?
Yes
No
USER BUTTON PRESS "Cancel Watering"
START Scheduled "Watering Process" (at 4AM)
Chart: Cancelled Watering
Chart: Completed Watering