In [1]:
```python
import matplotlib.pyplot as plt
import pandas as pd
import seaborn as sns
import numpy as np
```

In [8]:
```python
data = pd.read_csv("water_potability.csv")
```

In [9]:
```python
data.head()
```

Out[9]:

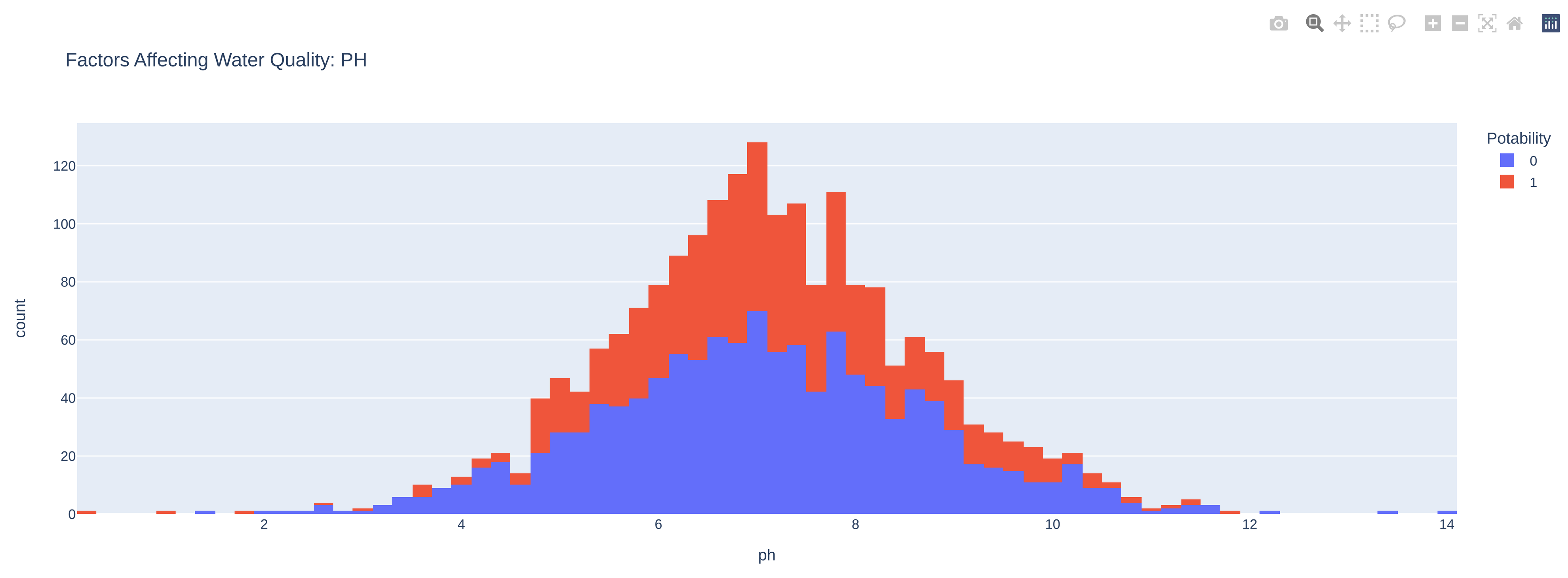
	ph	Hardness	Solids	Chloramines	Sulfate	Conductivity	Organic_carbon	Trihalomethanes	Turbidity	Potability
0	NaN	204.890455	20791.318981	7.300212	368.516441	564.308654	10.379783	86.990970	2.963135	0
1	3.716080	129.422921	18630.057858	6.635246	NaN	592.885359	15.180013	56.329076	4.500656	0
2	8.099124	224.236259	19909.541732	9.275884	NaN	418.606213	16.868637	66.420093	3.055934	0
3	8.316766	214.373394	22018.417441	8.059332	356.886136	363.266516	18.436524	100.341674	4.628771	0
4	9.092223	181.101509	17978.986339	6.546600	310.135738	398.410813	11.558279	31.997993	4.075075	0

In [10]:
```python
data = data.dropna()
data.isnull().sum()
```

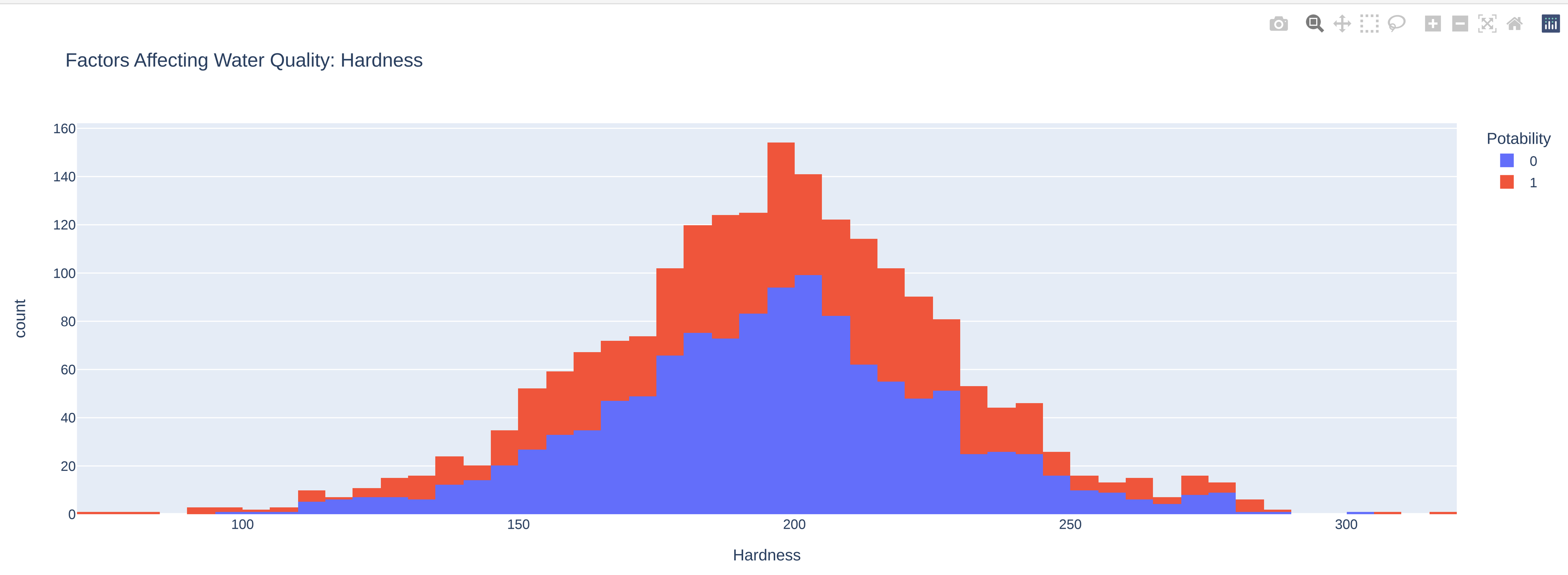
Out[10]:
```
ph                 0
Hardness           0
Solids             0
Chloramines        0
Sulfate            0
Conductivity       0
Organic_carbon     0
Trihalomethanes    0
Turbidity          0
Potability         0
dtype: int64
```

In [14]:
```python
import plotly.express as px
```

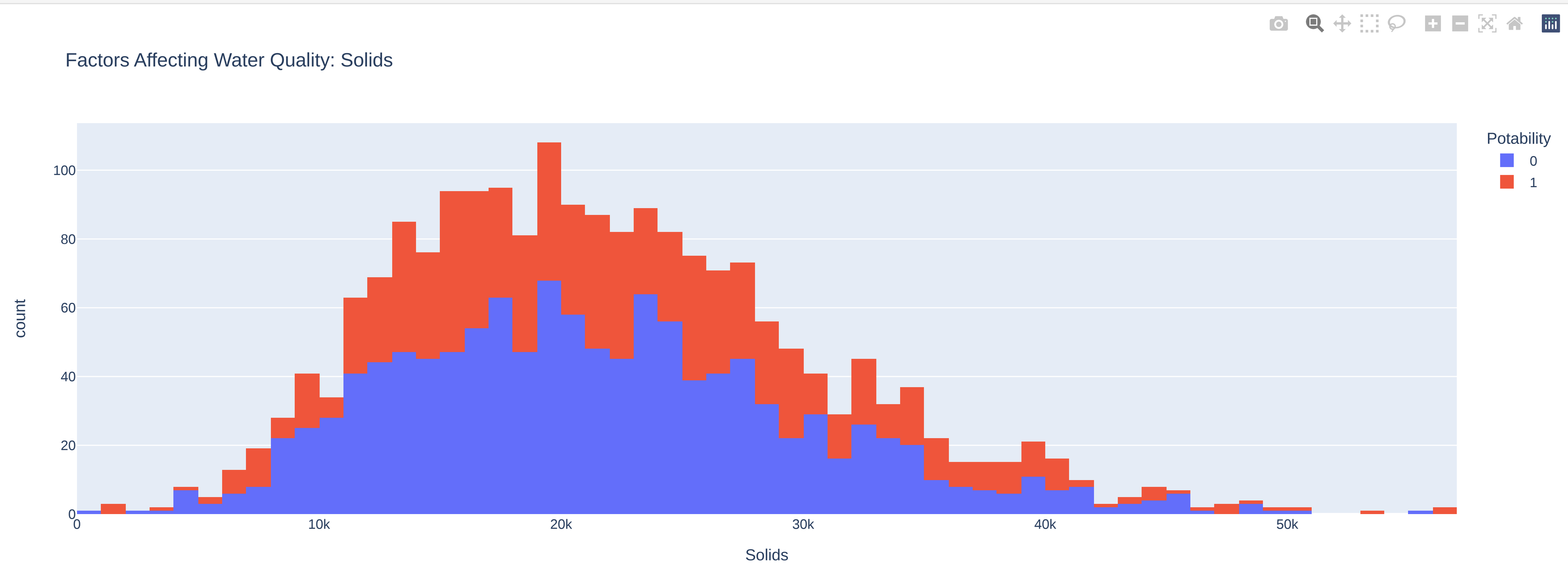
In [15]:
```python
data = data
figure = px.histogram(data, x = "ph",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: PH")
figure.show()
```



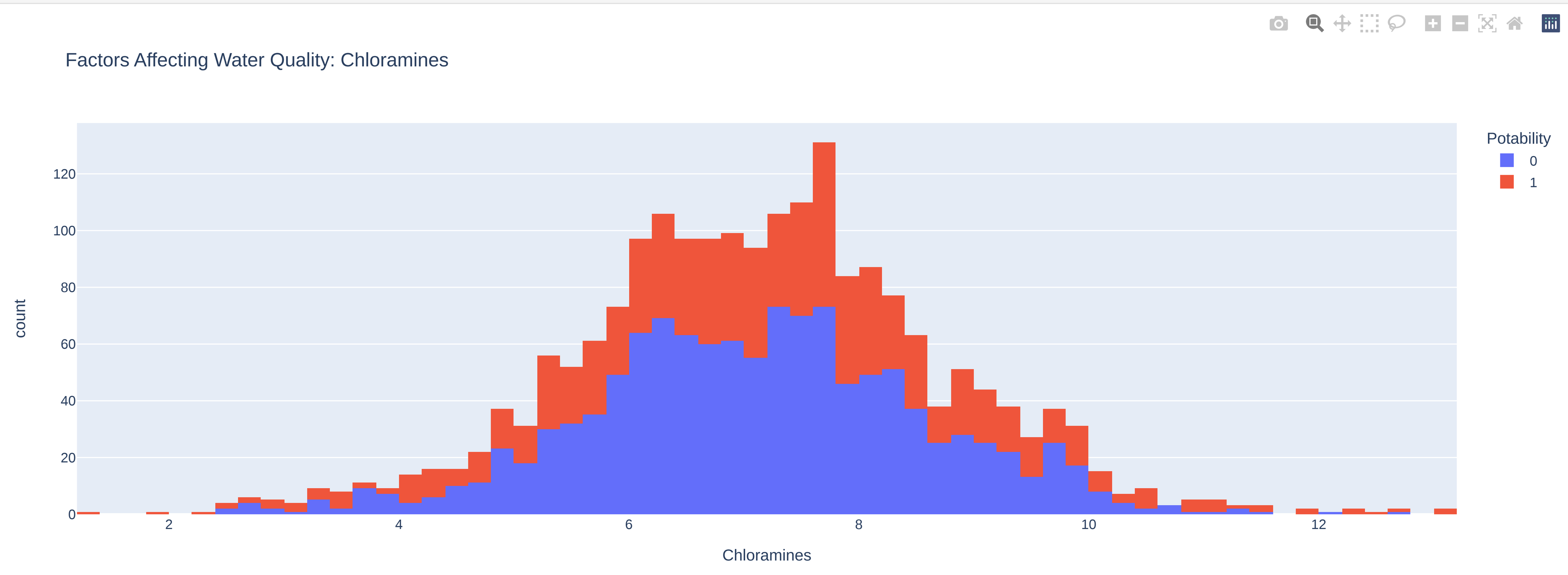
In [16]:
```python
figure = px.histogram(data, x = "Hardness",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Hardness")
figure.show()
```



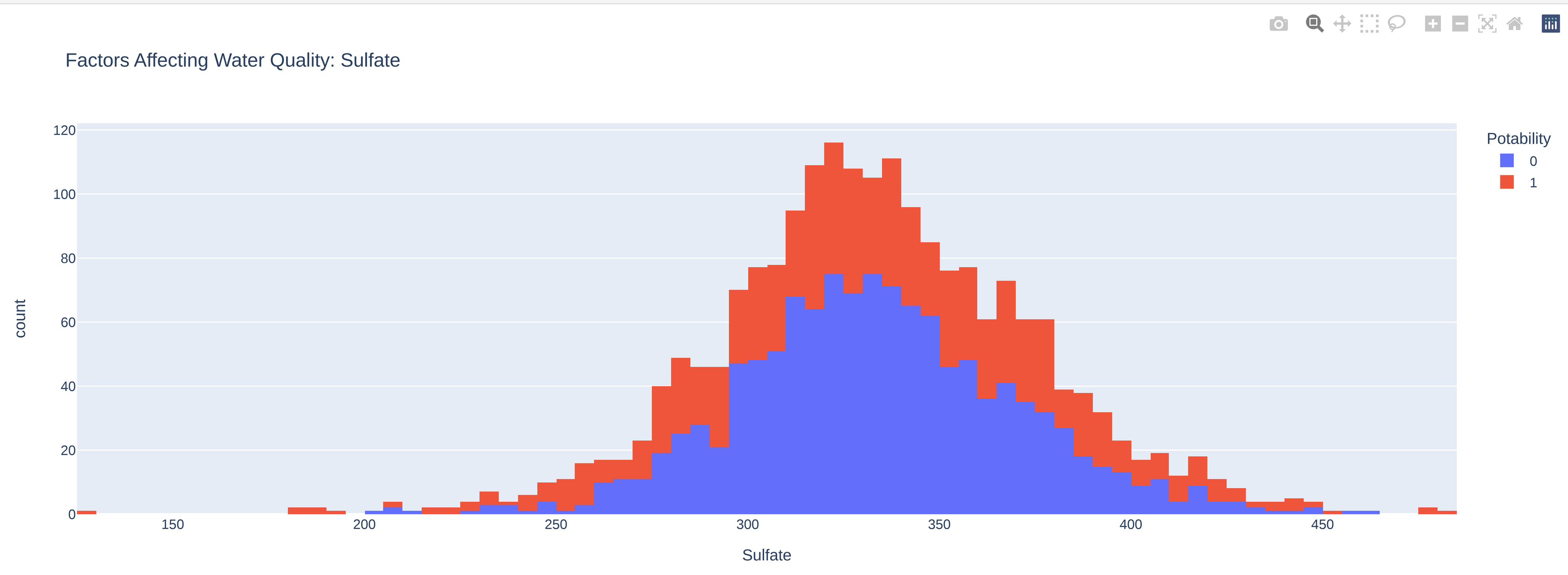
In [17]:
```python
figure = px.histogram(data, x = "Solids",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Solids")
figure.show()
```



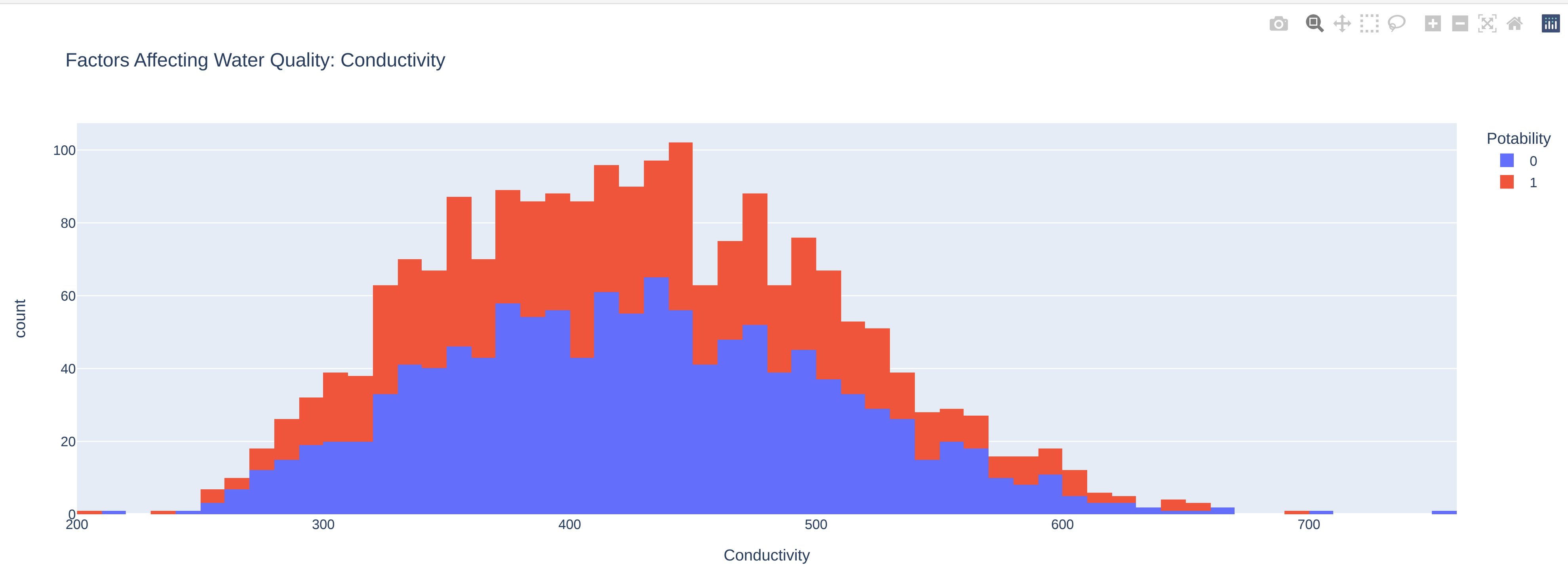
In [18]:
```python
figure = px.histogram(data, x = "Chloramines",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Chloramines")
figure.show()
```



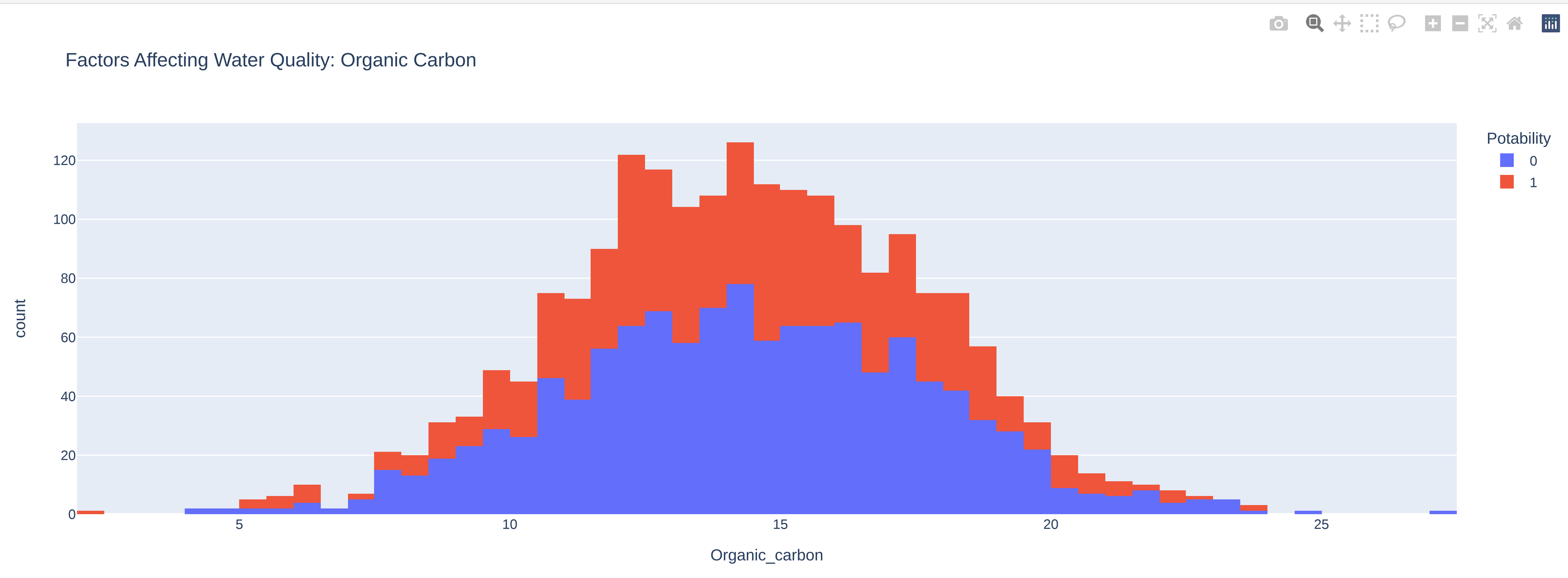
In [19]:
```python
figure = px.histogram(data, x = "Sulfate",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Sulfate")
figure.show()
```



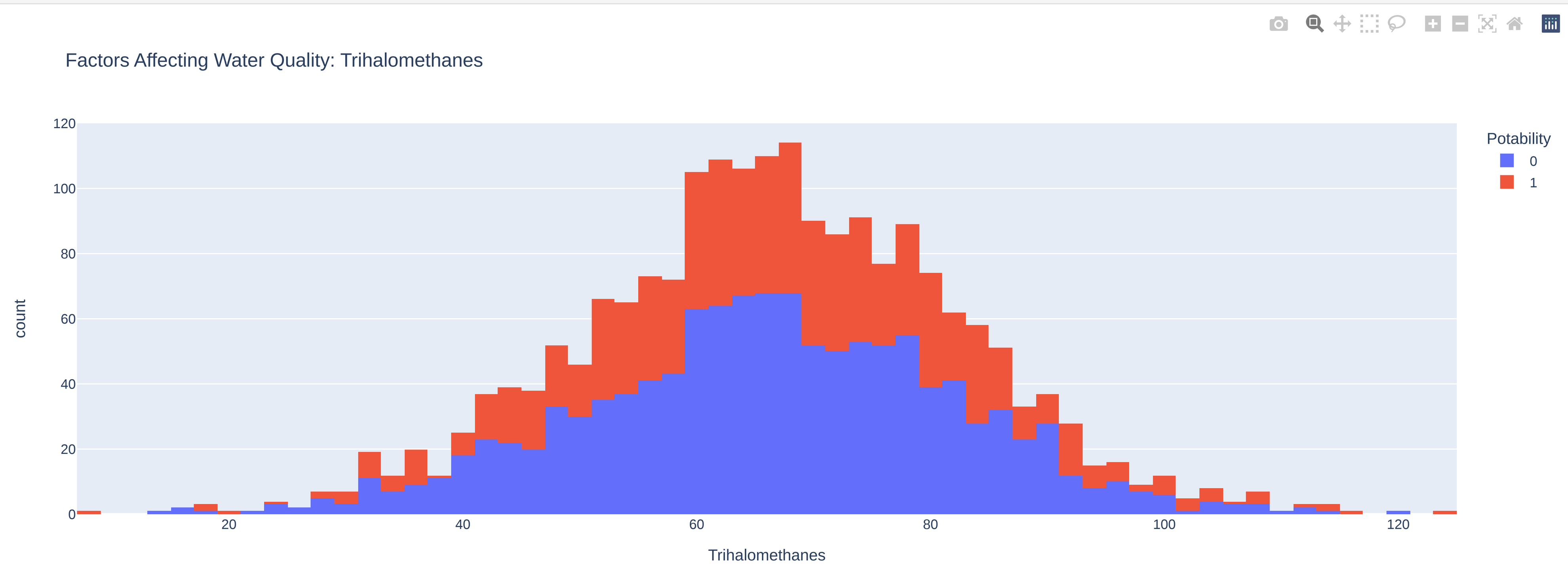
In [20]:
```python
figure = px.histogram(data, x = "Conductivity",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Conductivity")
figure.show()
```



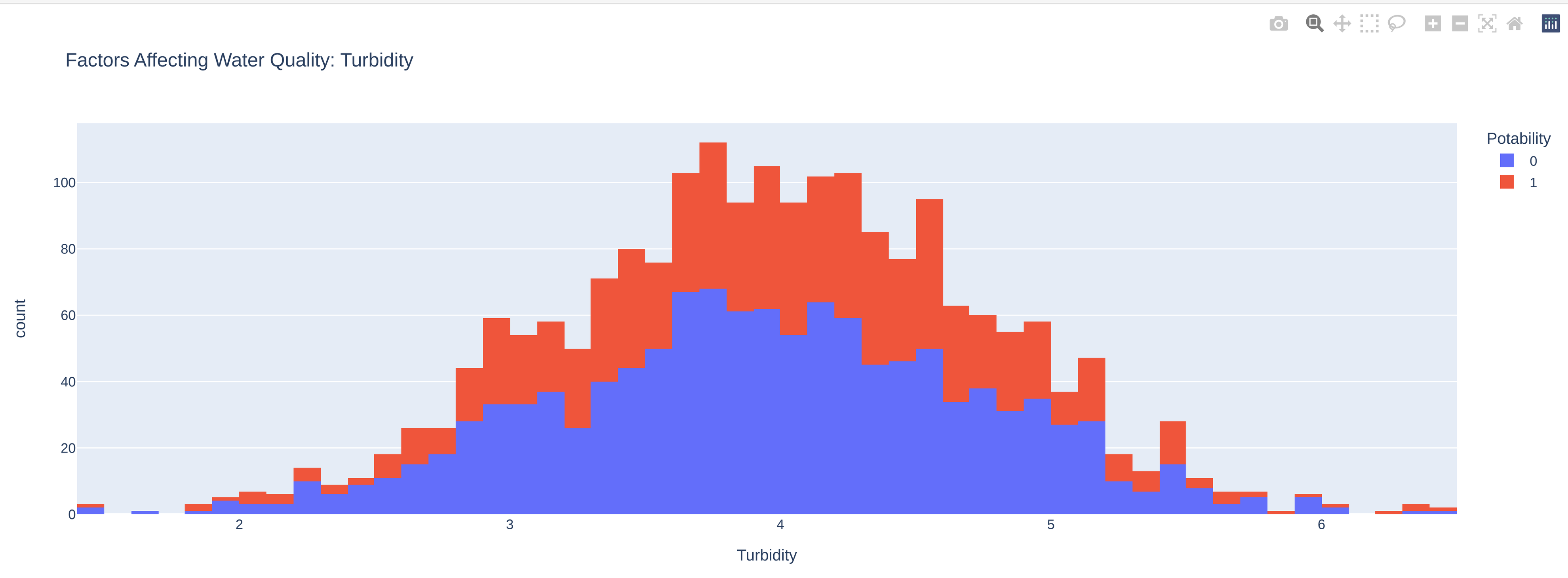
In [21]:
```python
figure = px.histogram(data, x = "Organic_carbon",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Organic Carbon")
figure.show()
```



In [22]:
```python
figure = px.histogram(data, x = "Trihalomethanes",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Trihalomethanes")
figure.show()
```



In [23]:
```python
figure = px.histogram(data, x = "Turbidity",
                      color = "Potability",
                      title= "Factors Affecting Water Quality: Turbidity")
figure.show()
```



In [ ]: