



# The ENSO Field Measurement Campaign Phase III: Water in Our Environment

## WEBINAR #8- April 12<sup>th</sup>, 2018 Greetings from Croatia, Medical School Varaždin

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# Medical School Varaždin - Varaždin/Croatia



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## Our Globe team



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- ❖ 500 students - ages 14-18
- The school offers education for nurses, caretakers, midwives, dental technicians, sanitary technicians, physiotherapists and laboratory technicians

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# Water in Our Environment

- ❖ Freshwater is extracted from groundwater, before at the Varaždin site and now at the Bartolovec site



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# Water in Our Environment

- ❖ Local agriculture however uses the water from the Plitvica and Drava rivers





# Plitvica - Jalkovec



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# Plitvica - Jalkovec



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# Plitvica - Jalkovec



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# Plitvica – Veliki Bukovec



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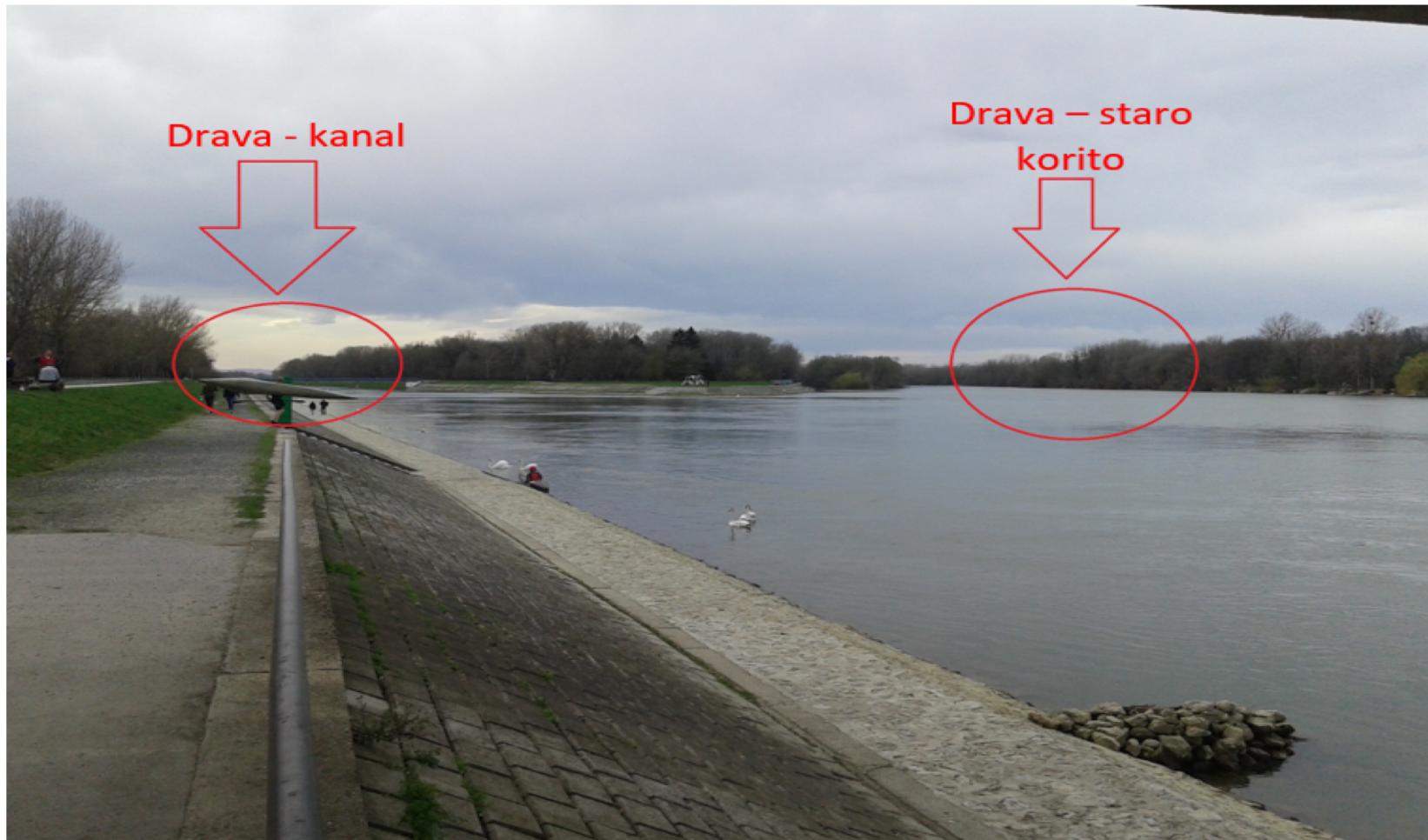
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# Drava



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# Drava - kanal



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# Drava - kanal



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# Drava – staro korito



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# Drava – staro korito



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## Drava - vegetation

Willow (*Salix alba*, *S. purpurea*, *S. fragilis*, *S. caprea*, *S. cinerea* etc.)

- White Poplar (*Populus alba*), Black Poplar (*P. nigra*), Penduculate Oak (*Quercus robur*)
- Black Alder (*Alnus glutinosa*), Grey Alder (*A. incana*), Smoothleaf Elm (*Ulmus carpinifolia*), European White Elm (*U. laevis*), Narrow – leafed Ash(*Fraxinus angustifolia*), European Hornebeam (*Carpinus betulus*) etc.

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# Our Research on Water in Our Environment

- ❖ We have been researching the quality of water in the Plitvica and Drava rivers for the last 3 years
- ❖ We wanted to see how the water is affected by the local agriculture and anthropological factors

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# Our Research on Water in Our Environment

- ❖ We use an alcohol thermometer, a turbidity transparency tube, a pH meter, a conductivity meter and test kits for nitrates, nitrites, oxygen and alkalinity to do out measurements

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# Our Research on Water in Our Environment

- ❖ We presented the results of our research to our local community and through a webinar and to the Jalkovec habitants



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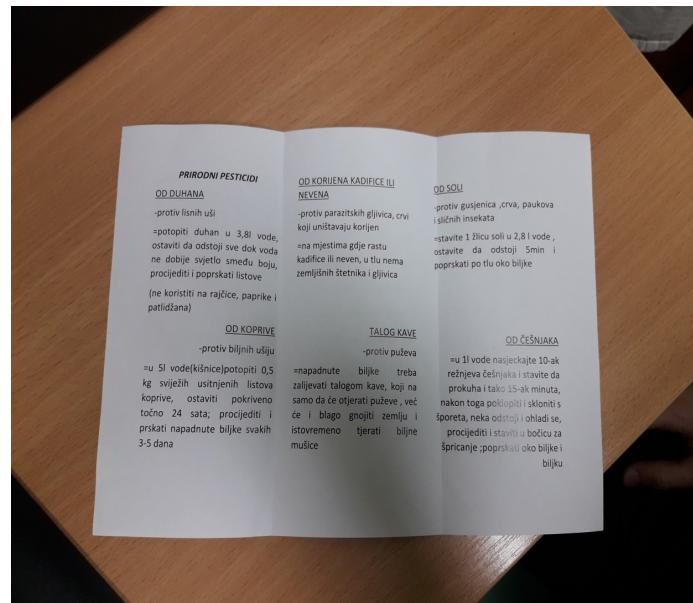
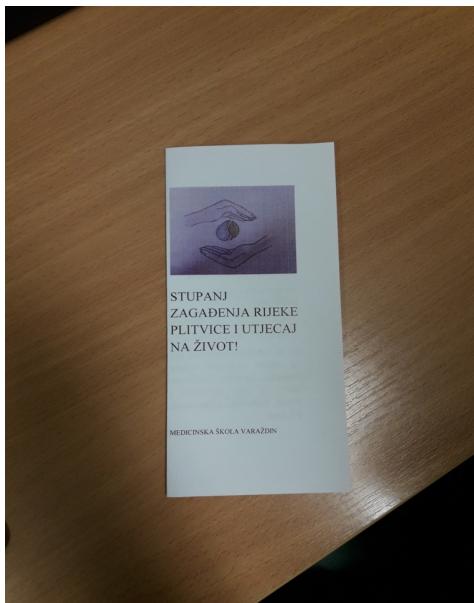


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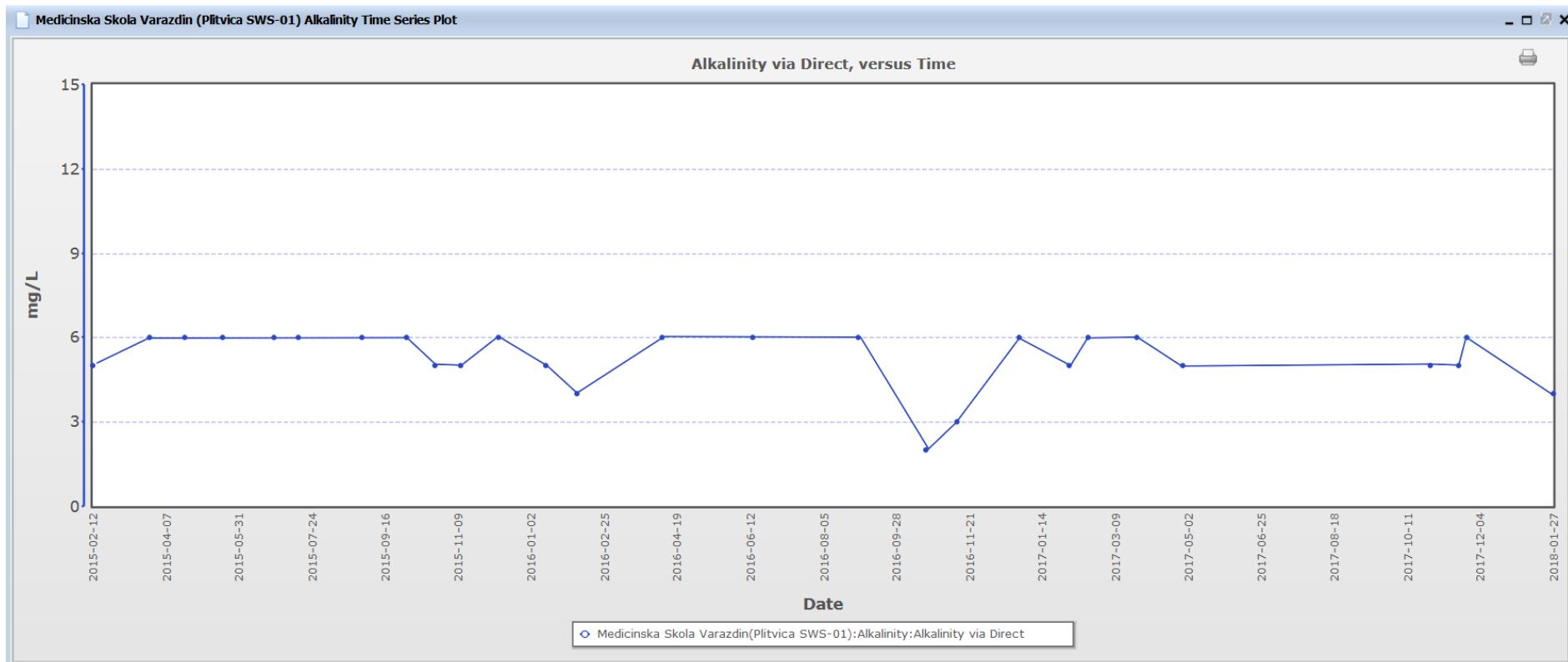
# Our Research on Water in Our Environment

- ❖ We also made a leaflet about which are the natural substances that can be used instead of toxic pesticides. (ex. You can use nettle or garlic ingredients to make a natural pesticide)





# Plitvica (Jalkovec) - Alkalinity



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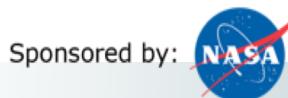
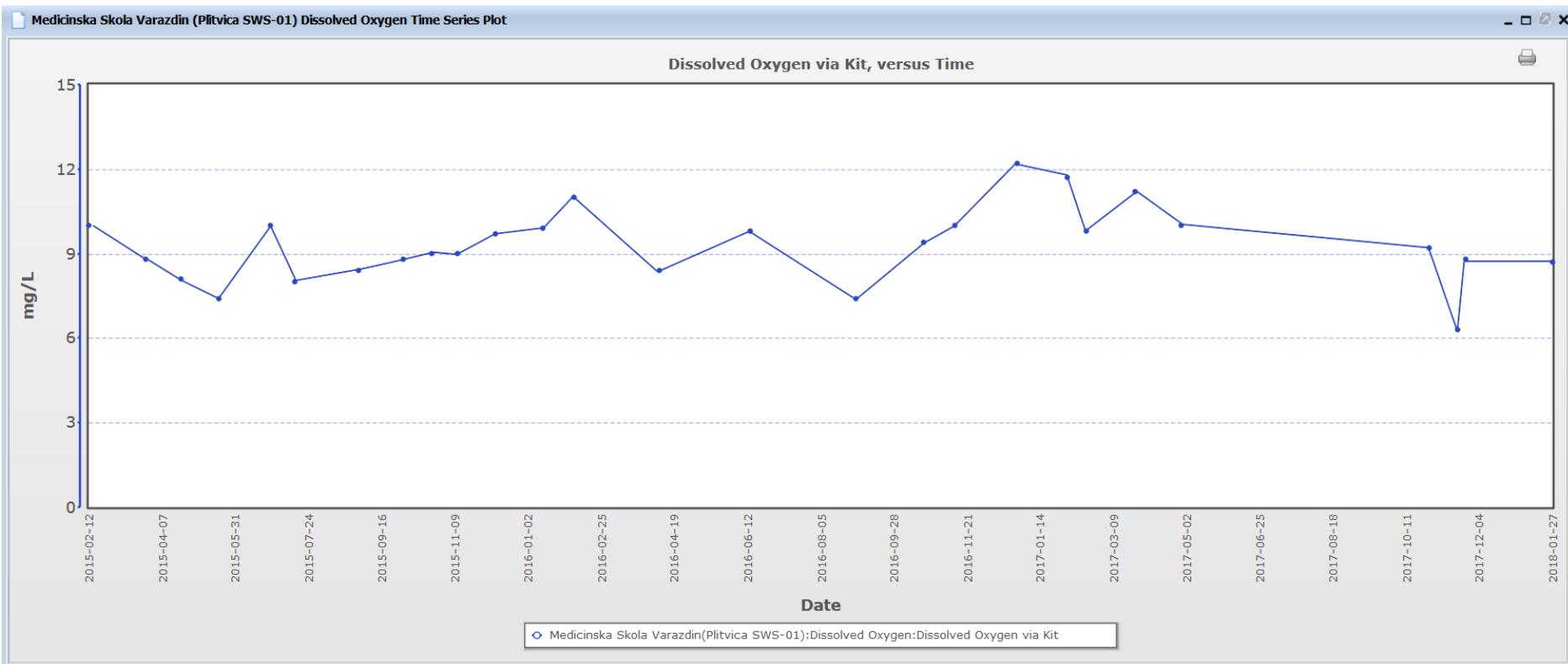


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# Plitvica (Jalkovec) - Oxygen



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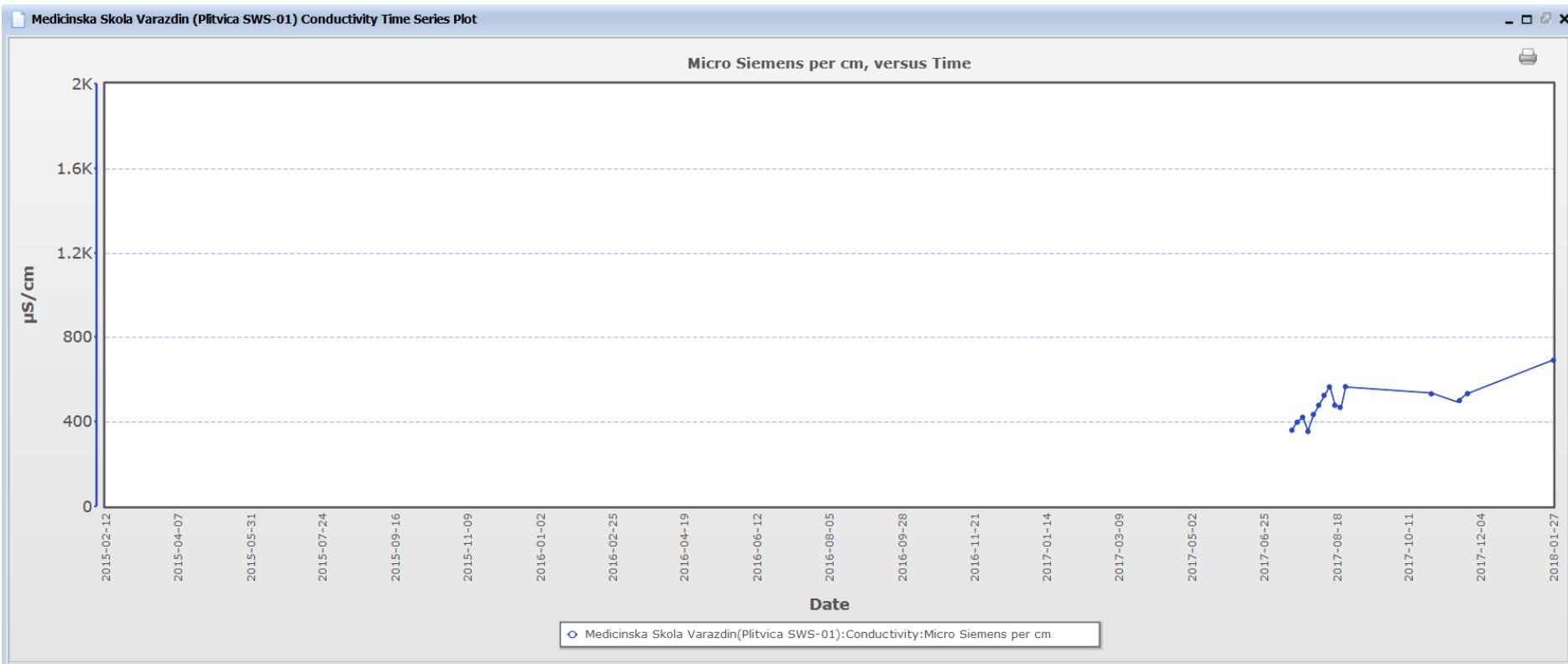


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# Plitvica (Jalkovec) - Conductivity



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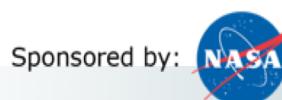
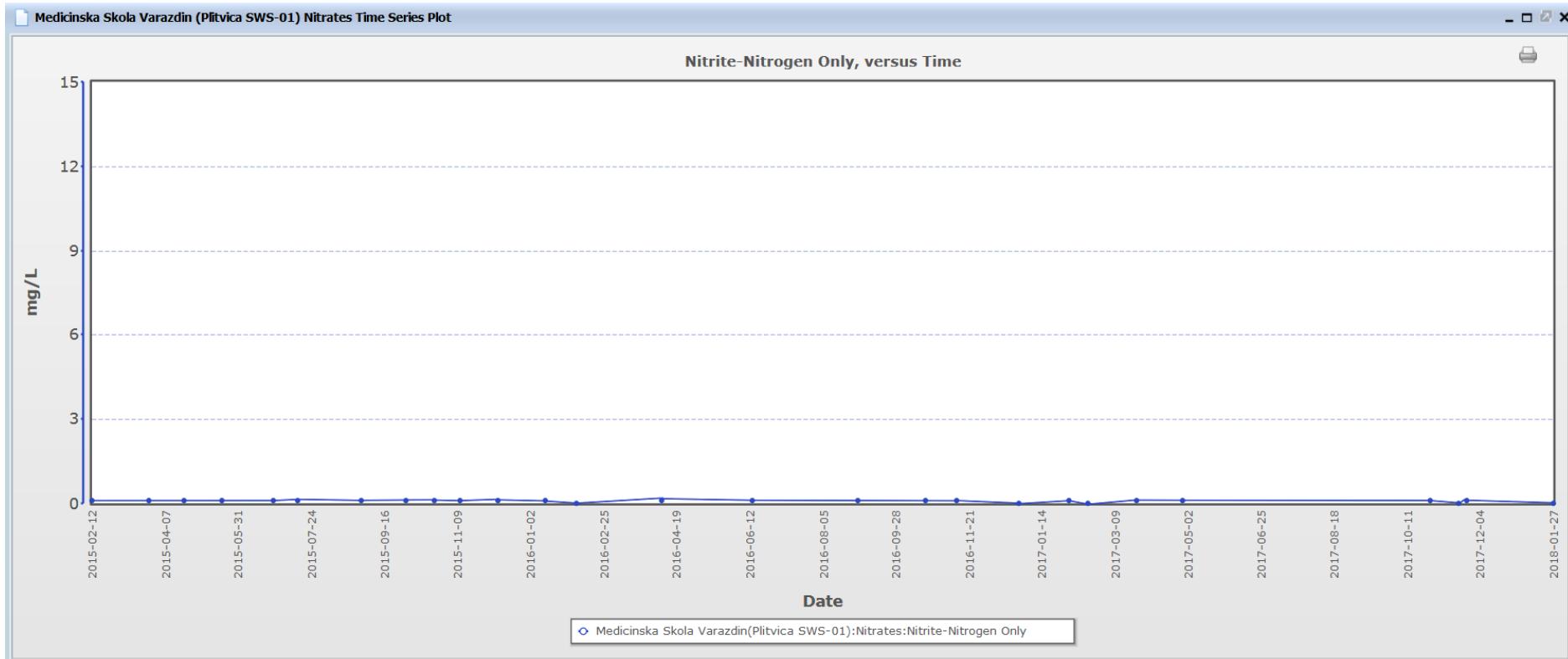


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# Plitvica (Jalkovec) - Nitrates



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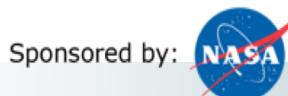
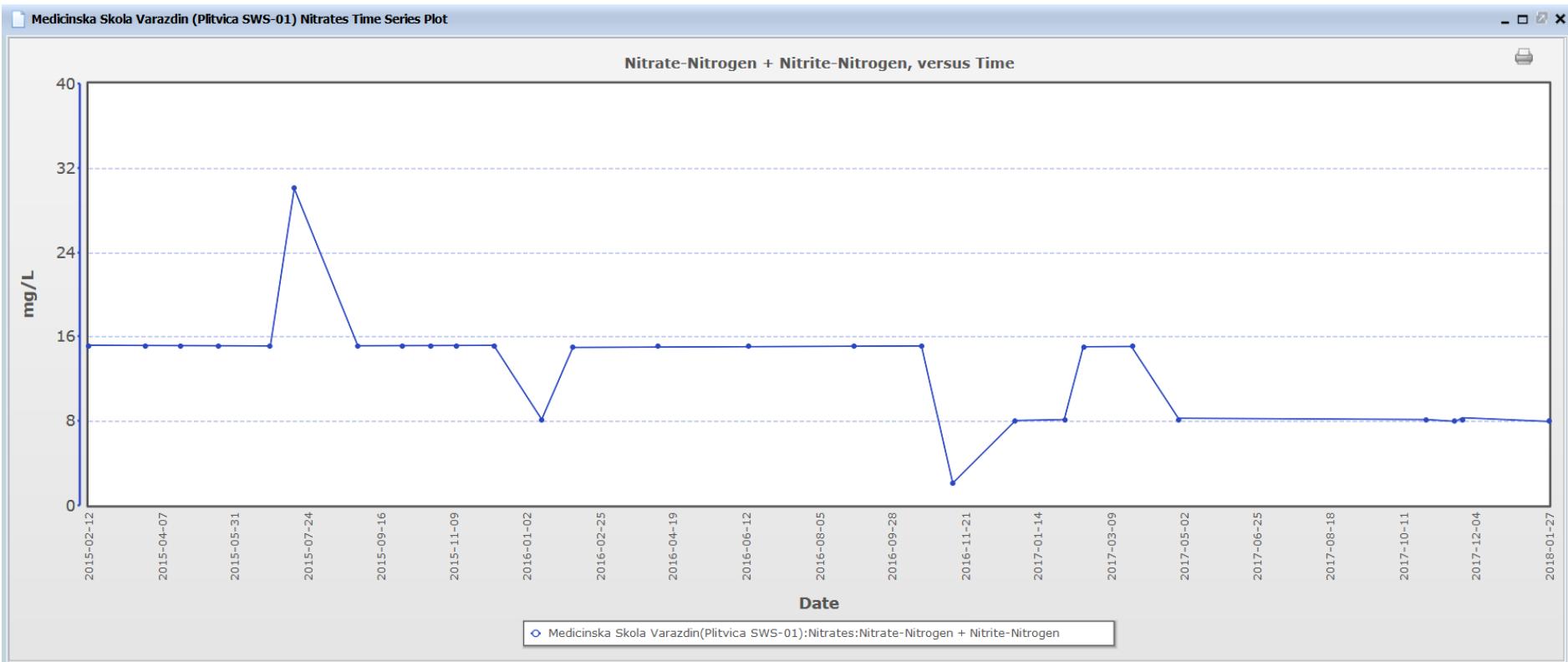


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# Plitvica (Jakovec) – Nitrites + Nitrates



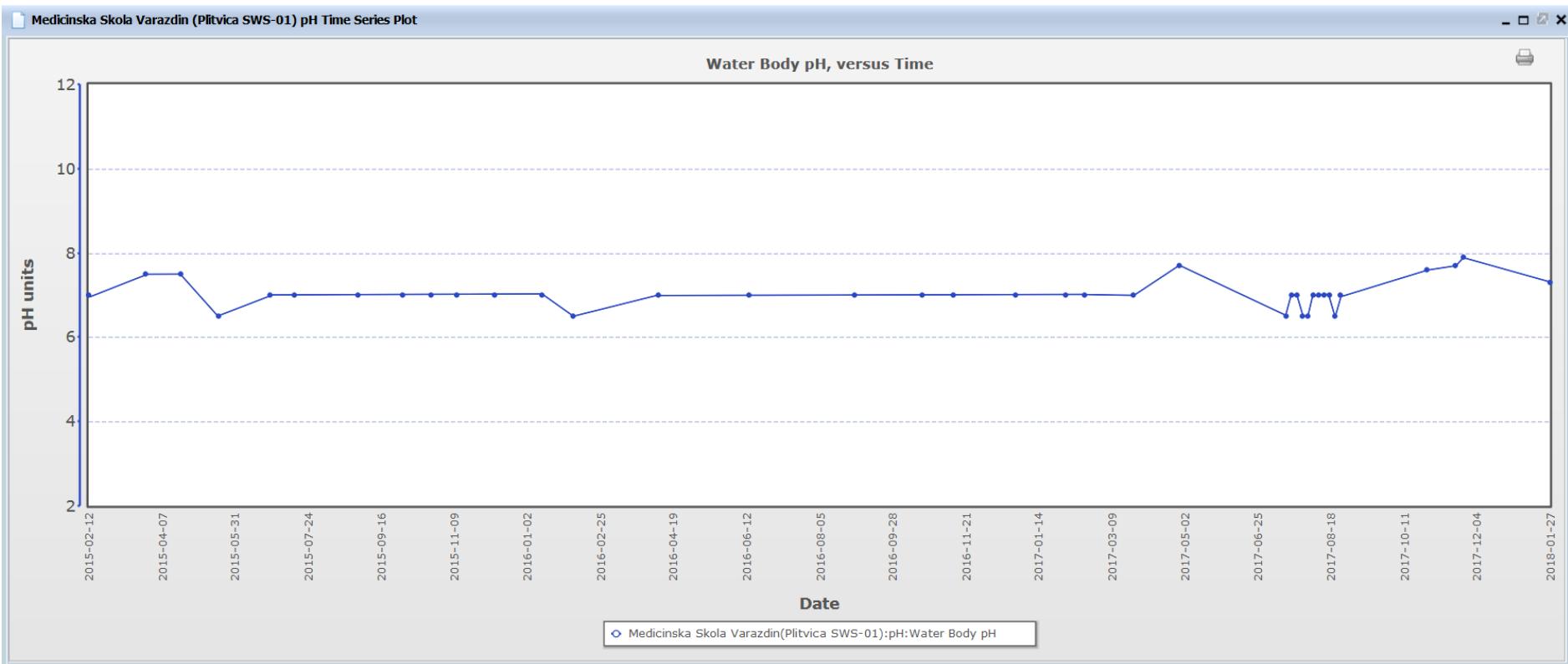
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# Plitvica (Jalkovec) - pH



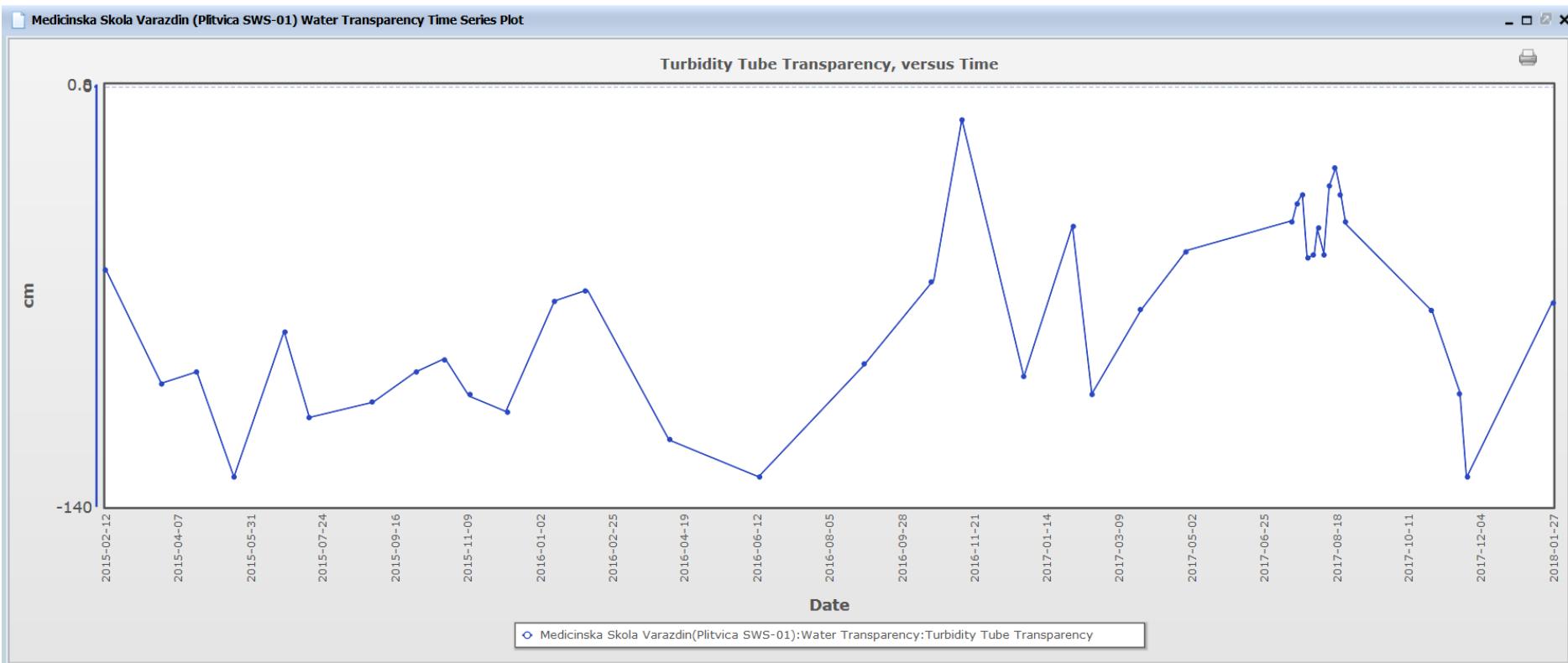
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# Plitvica (Jalkovec) - Transparency



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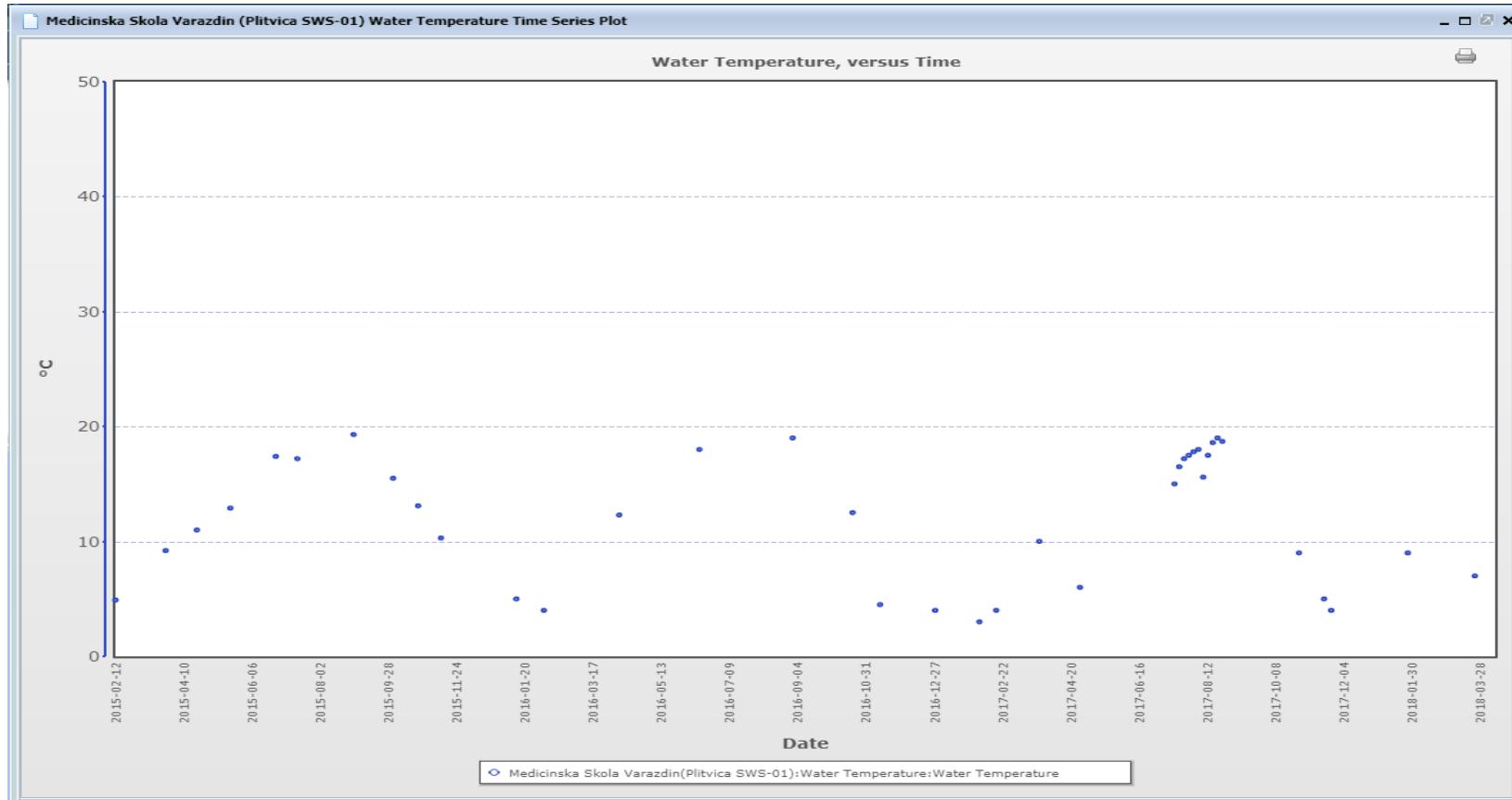


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# Plitvica (Jalkovec) - Temperature



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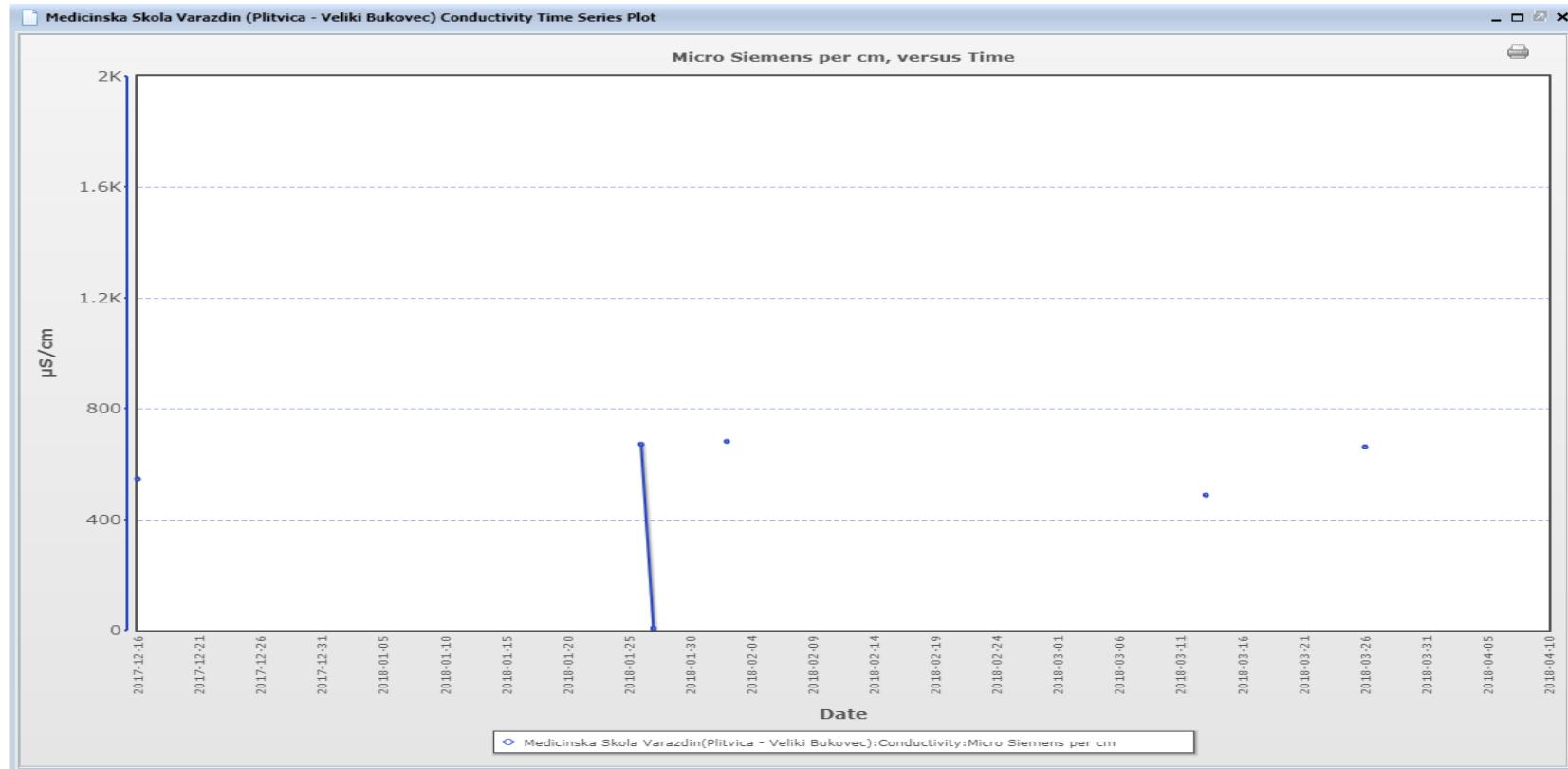


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# Plitvica (Veliki Bukovec) - Conductivity



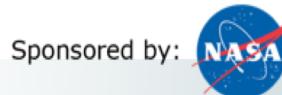
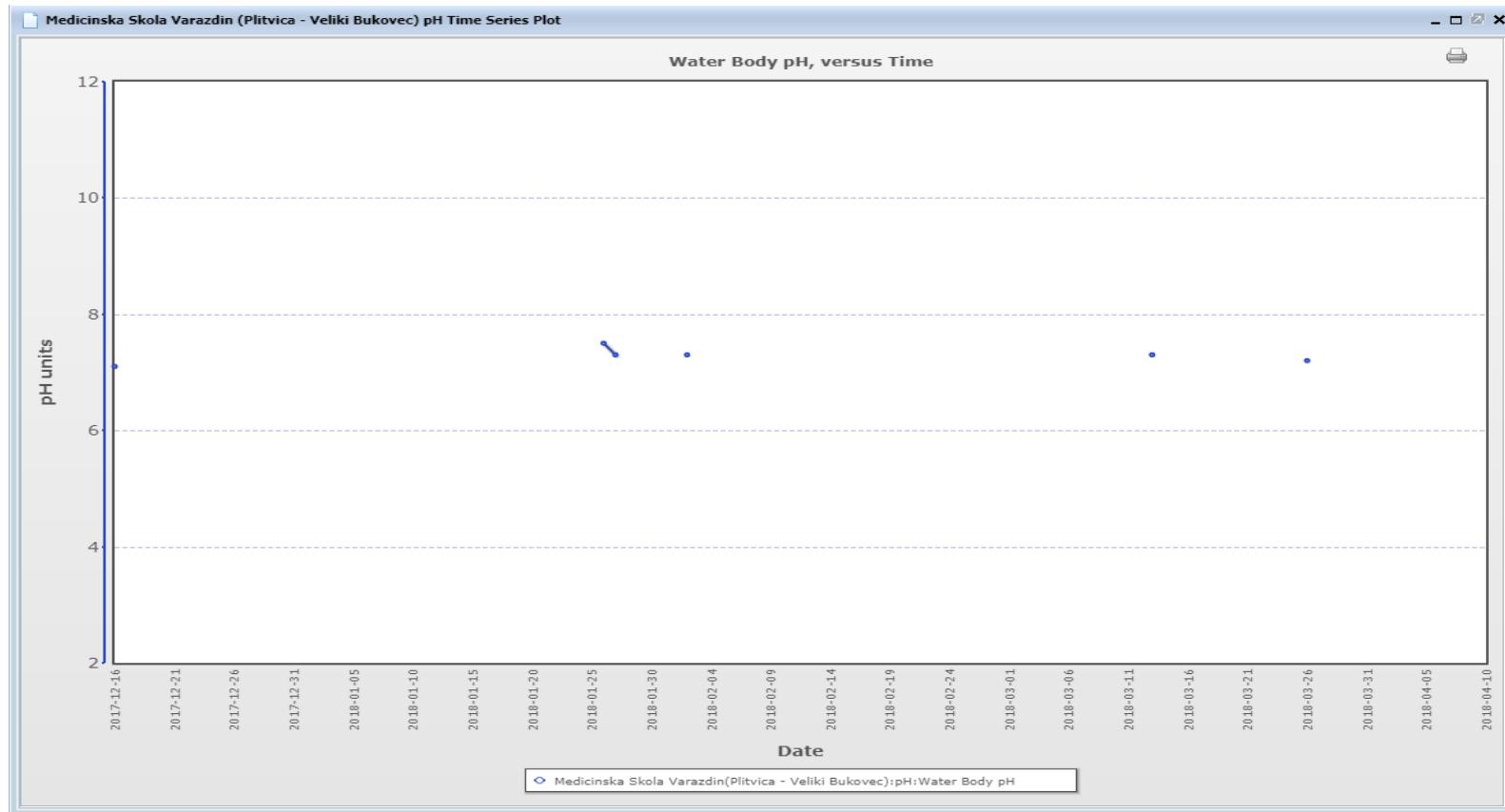
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# Plitvica (Veliki Bukovec) - pH



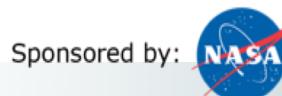
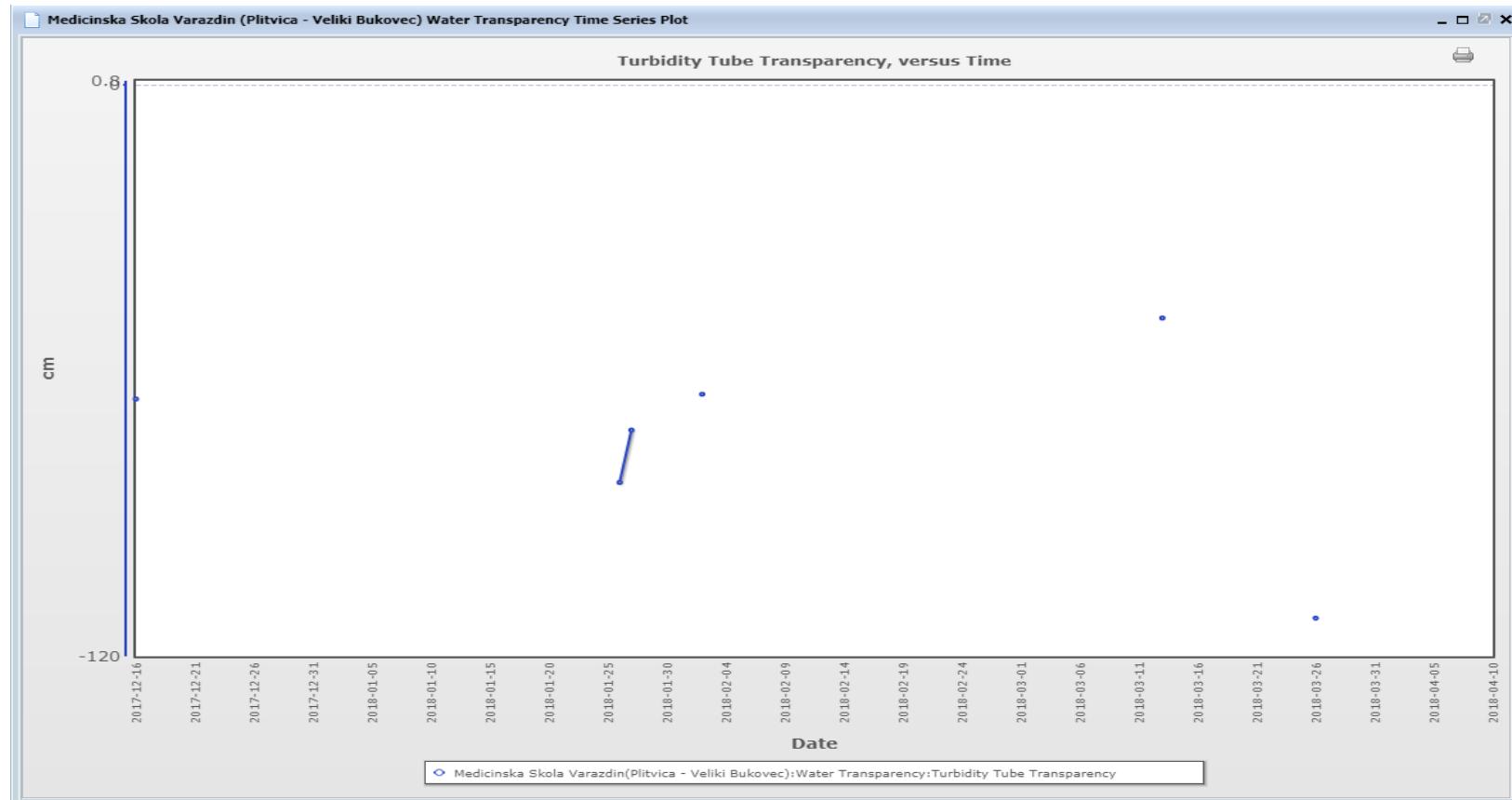
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# Plitvica (Veliki Bukovec) - Transparency



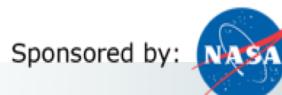
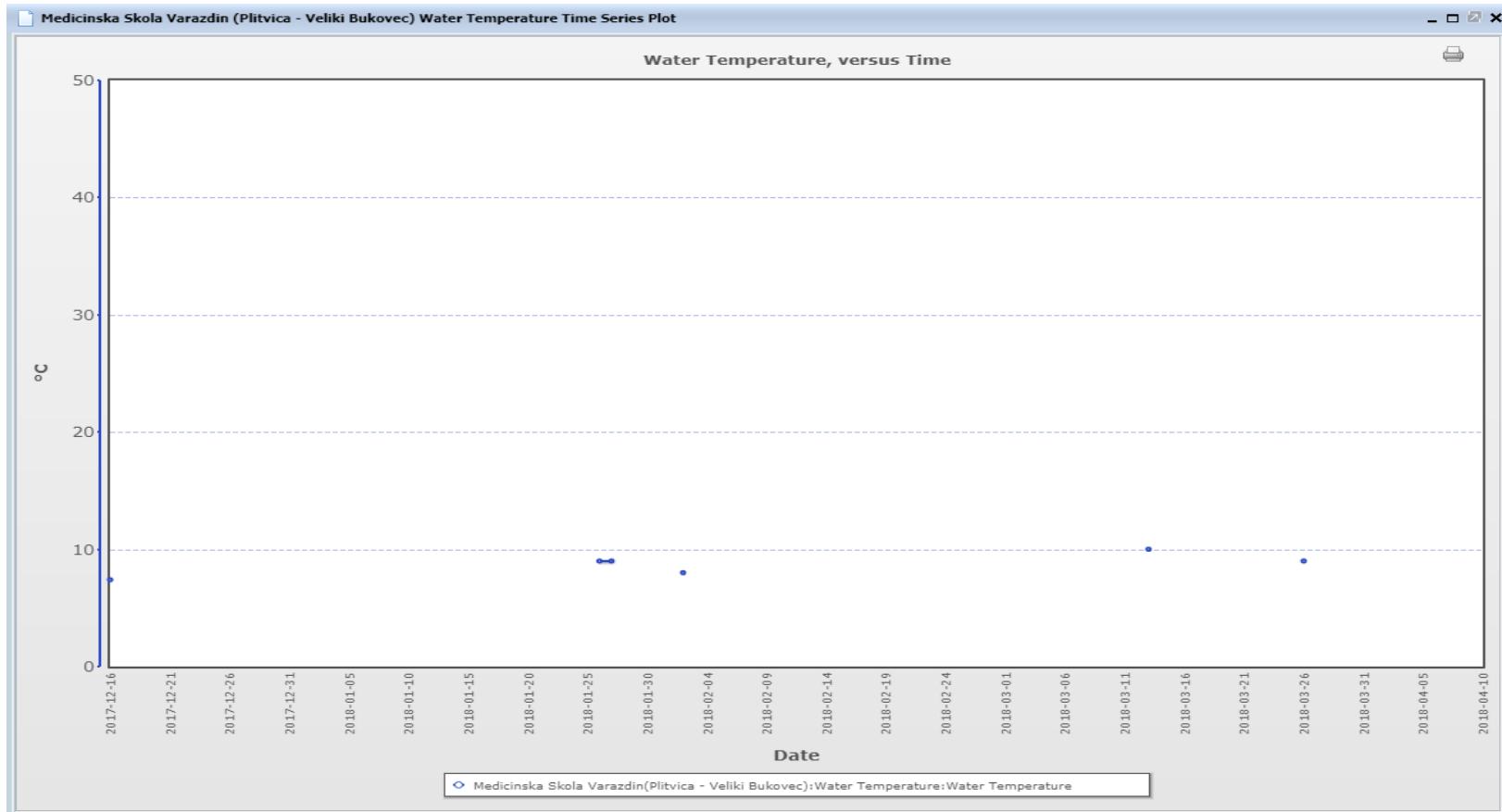
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# Plitvica (Veliki Bukovec) - Temperature



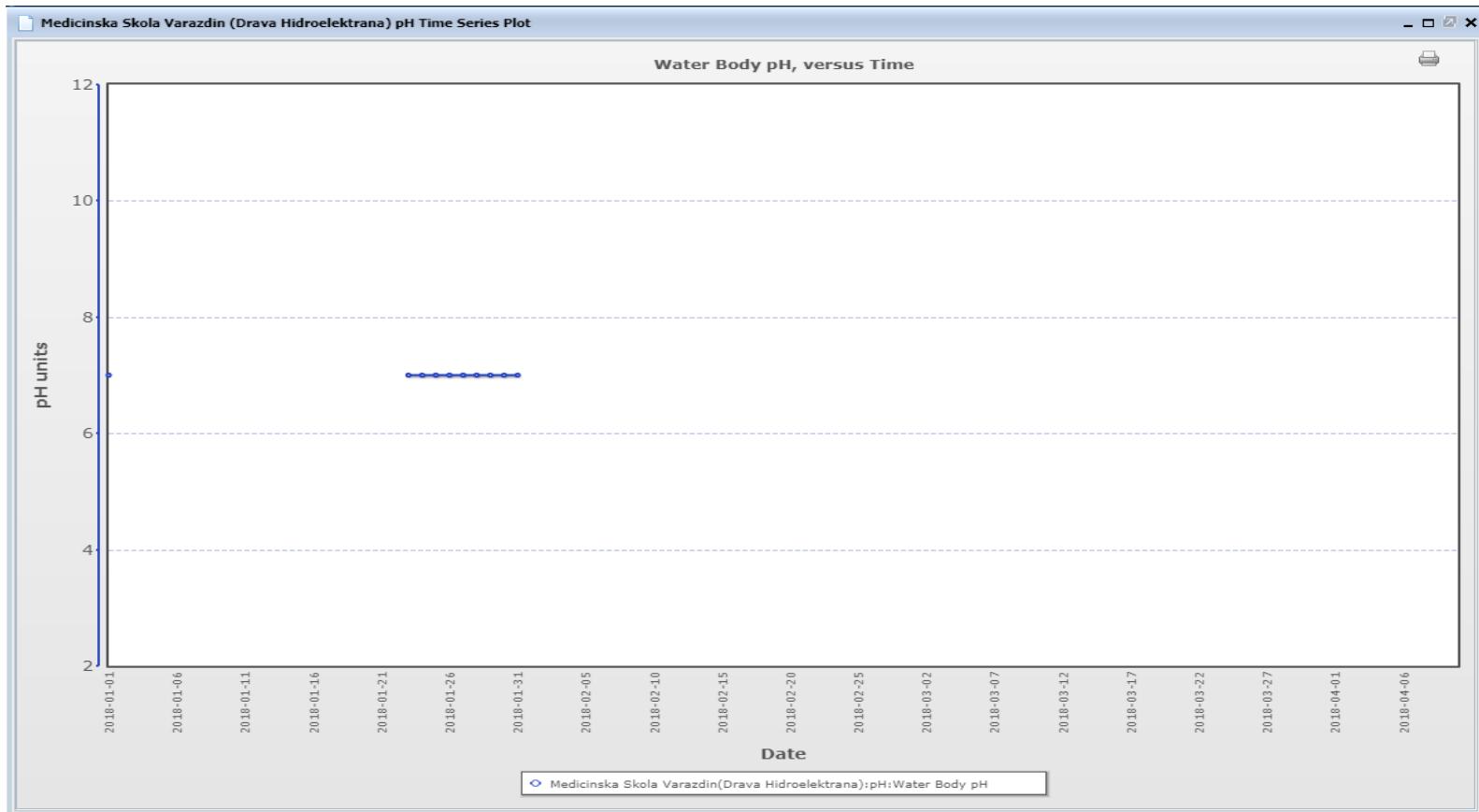
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# Drava (hidroelektrana) - pH



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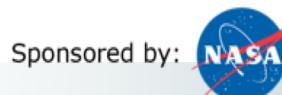
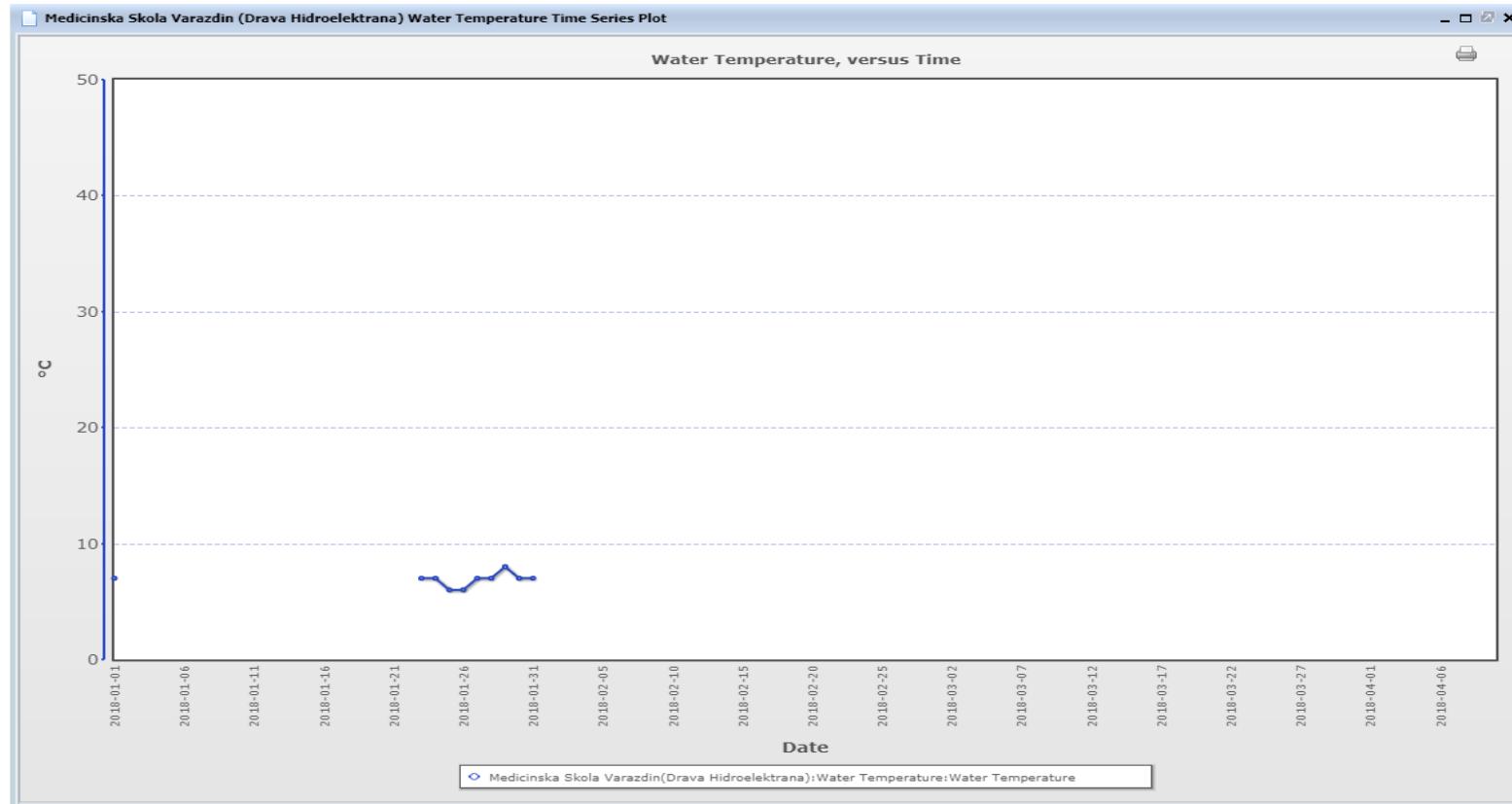


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# Drava (hidroelektrana) - Temperature



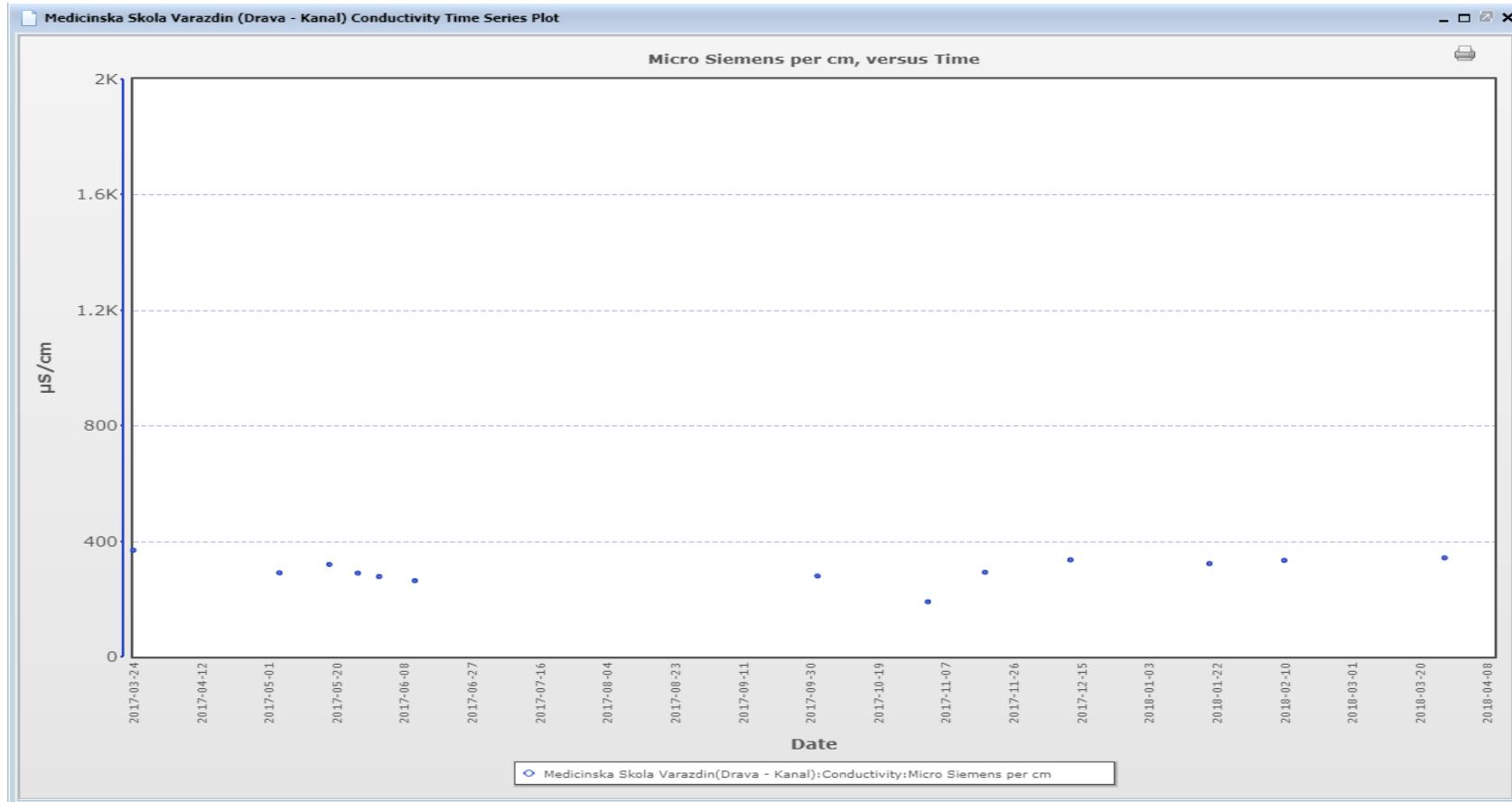
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# Drava (kanal) - Conductivity



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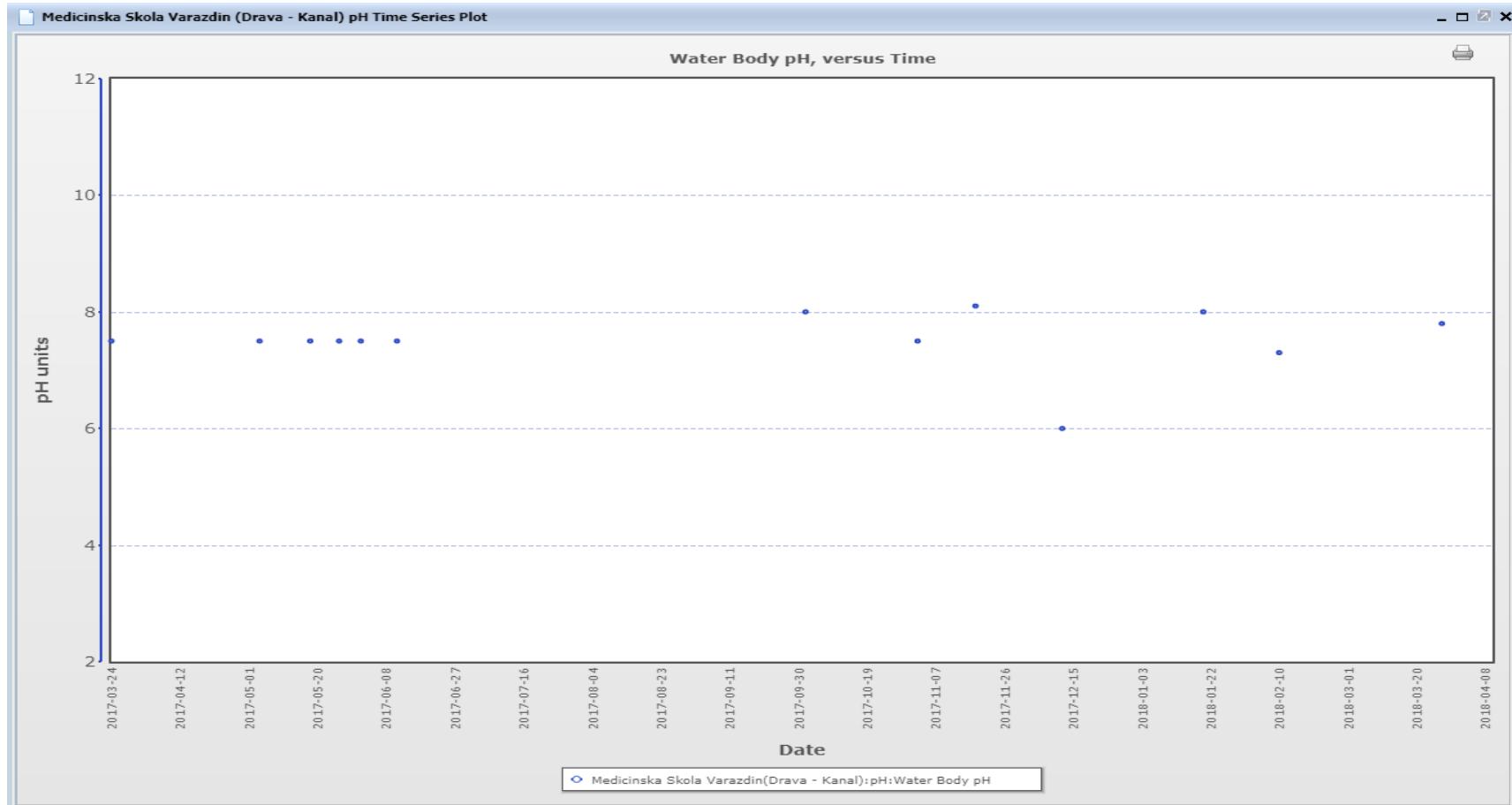


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# Drava (kanal) - pH



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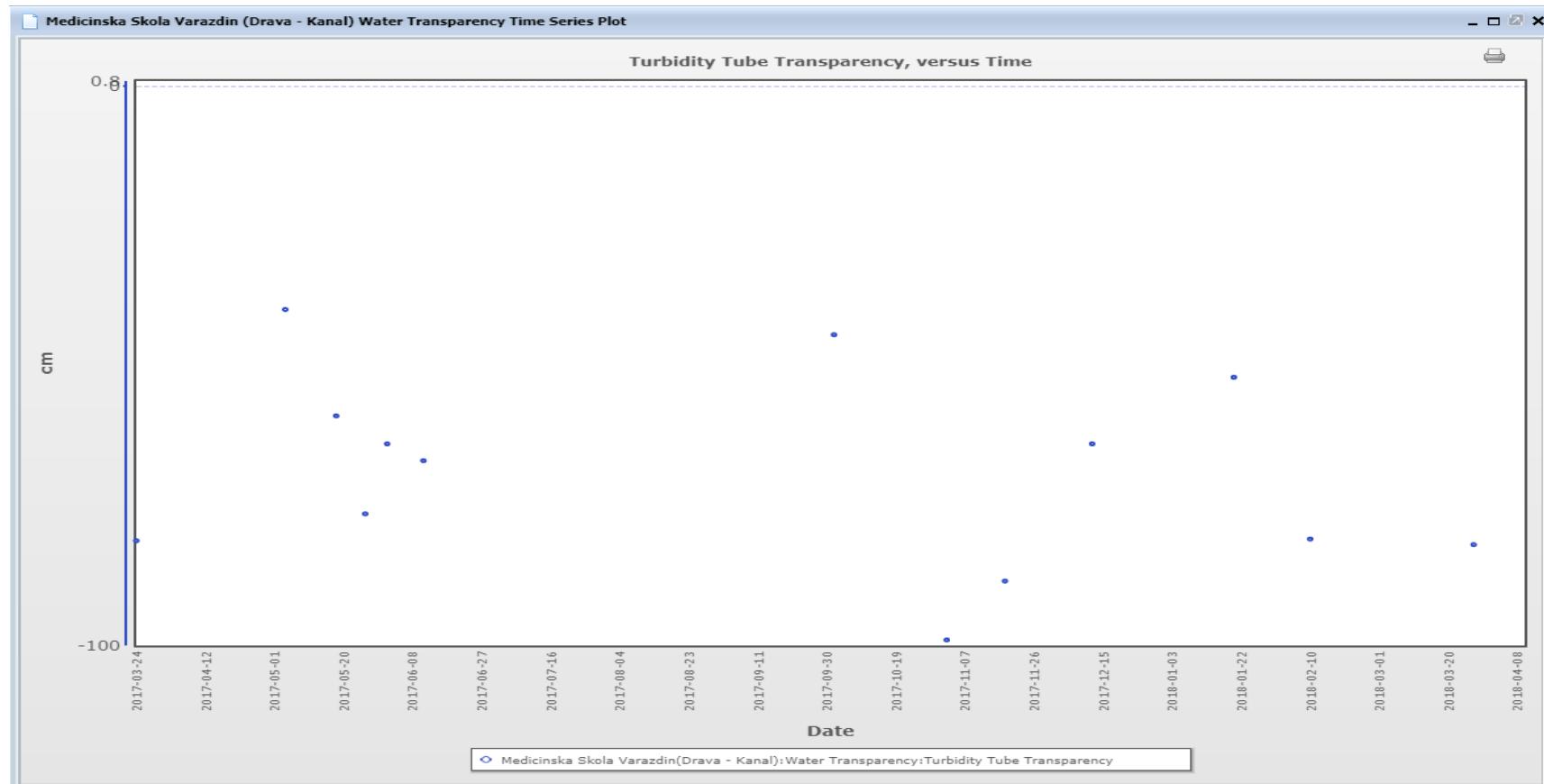


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# Drava (kanal) - Transparency



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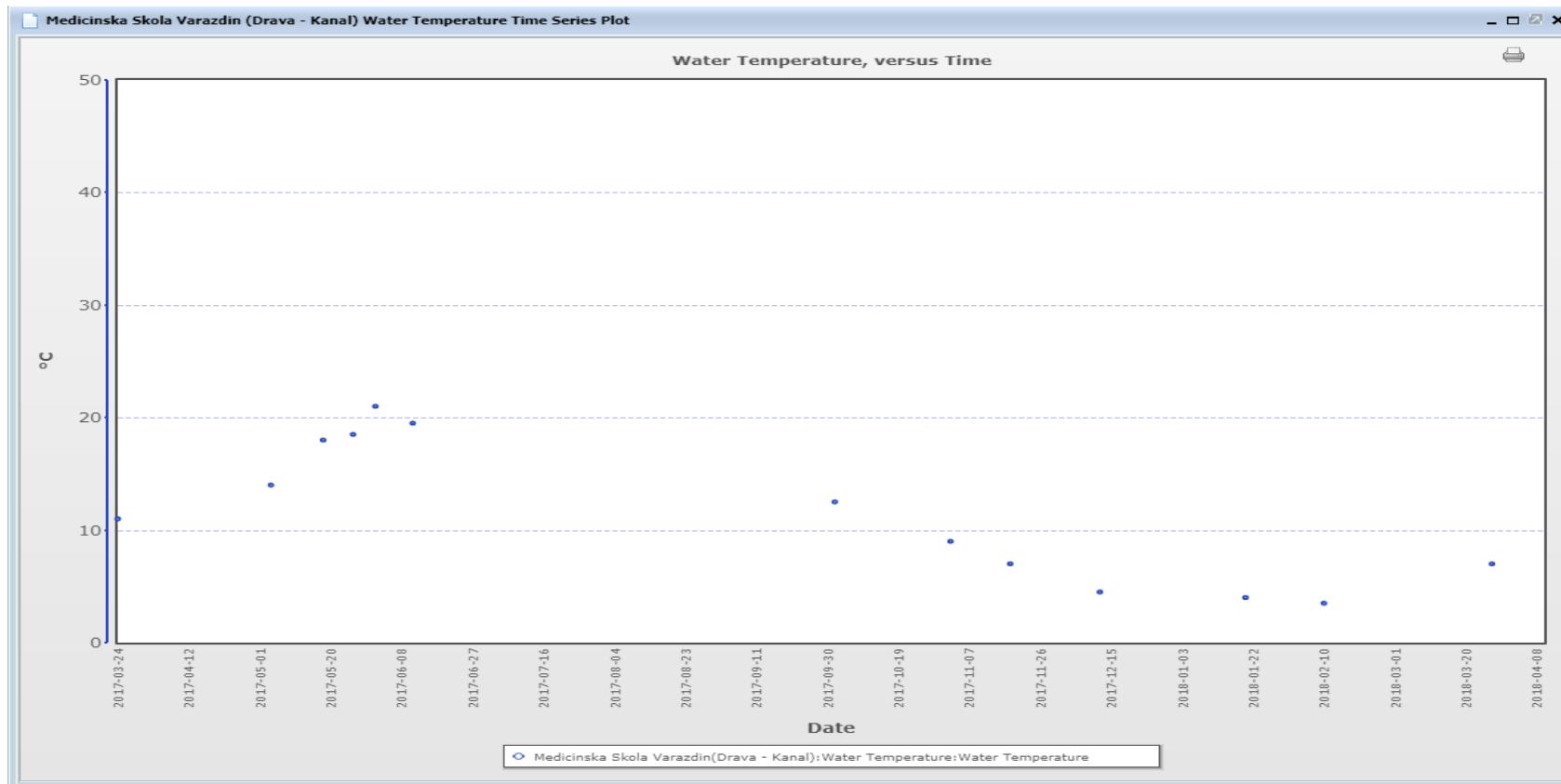
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# Drava (kanal) – Temperature



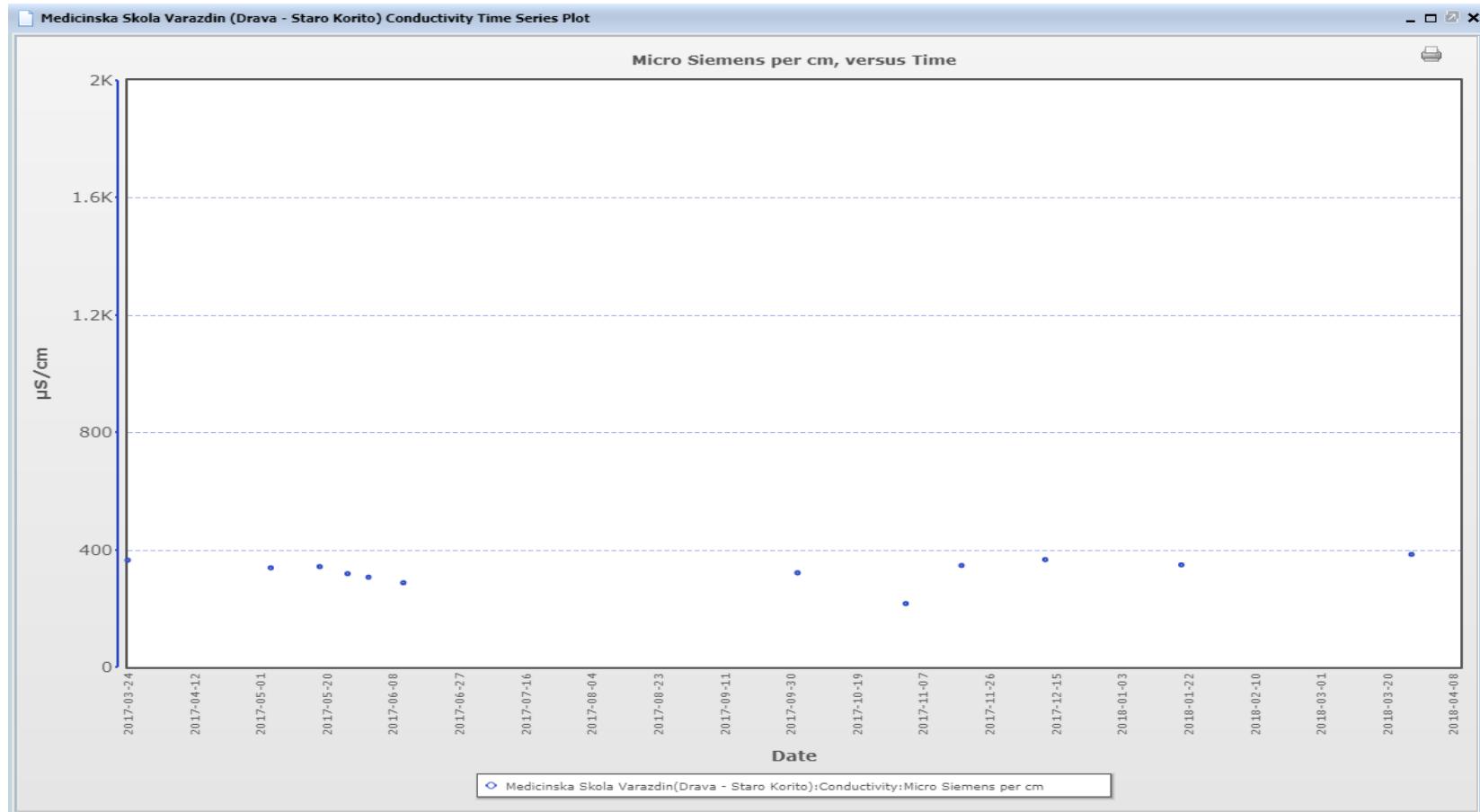
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# Drava (staro korito) - Conductivity



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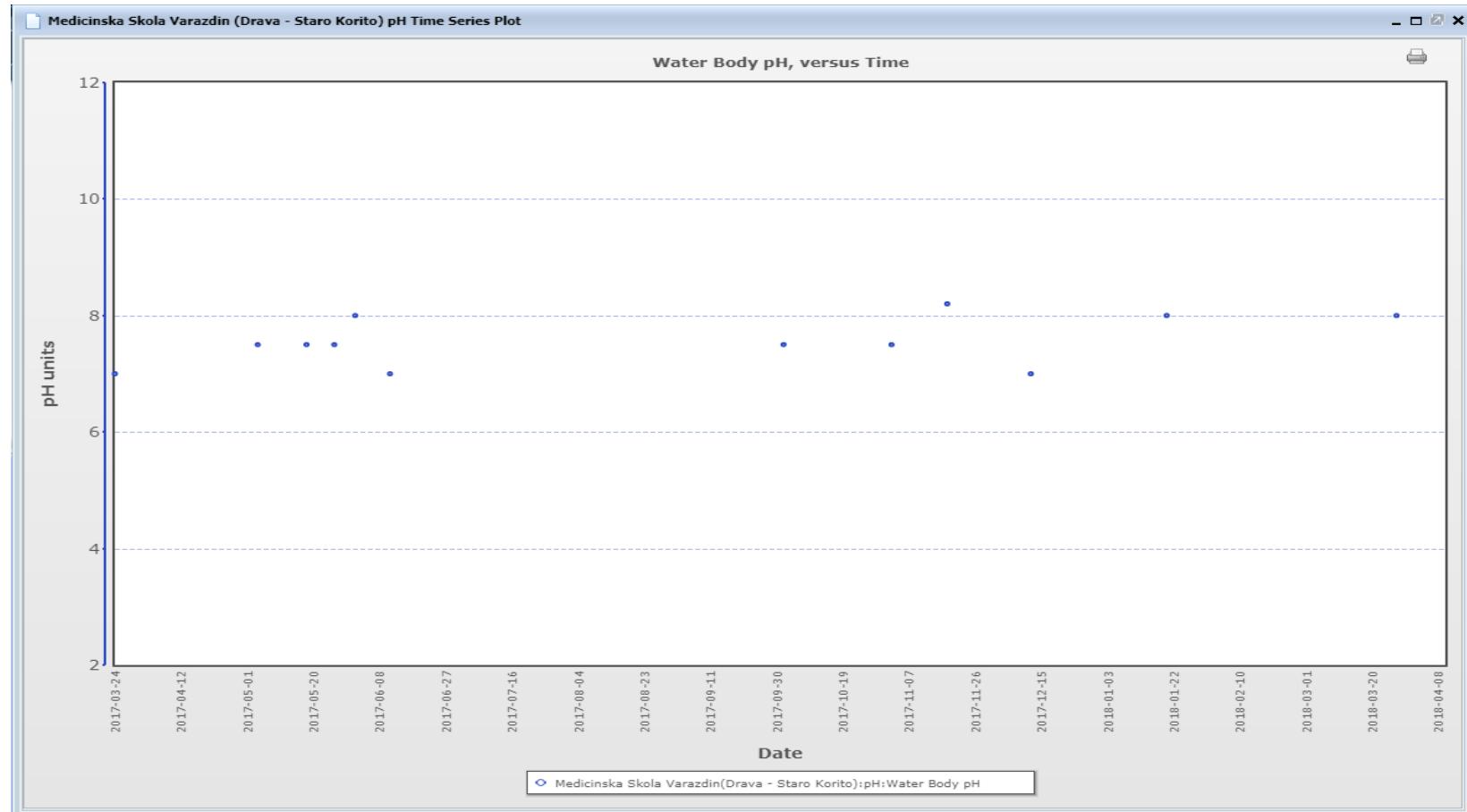


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# Drava (staro korito) - pH



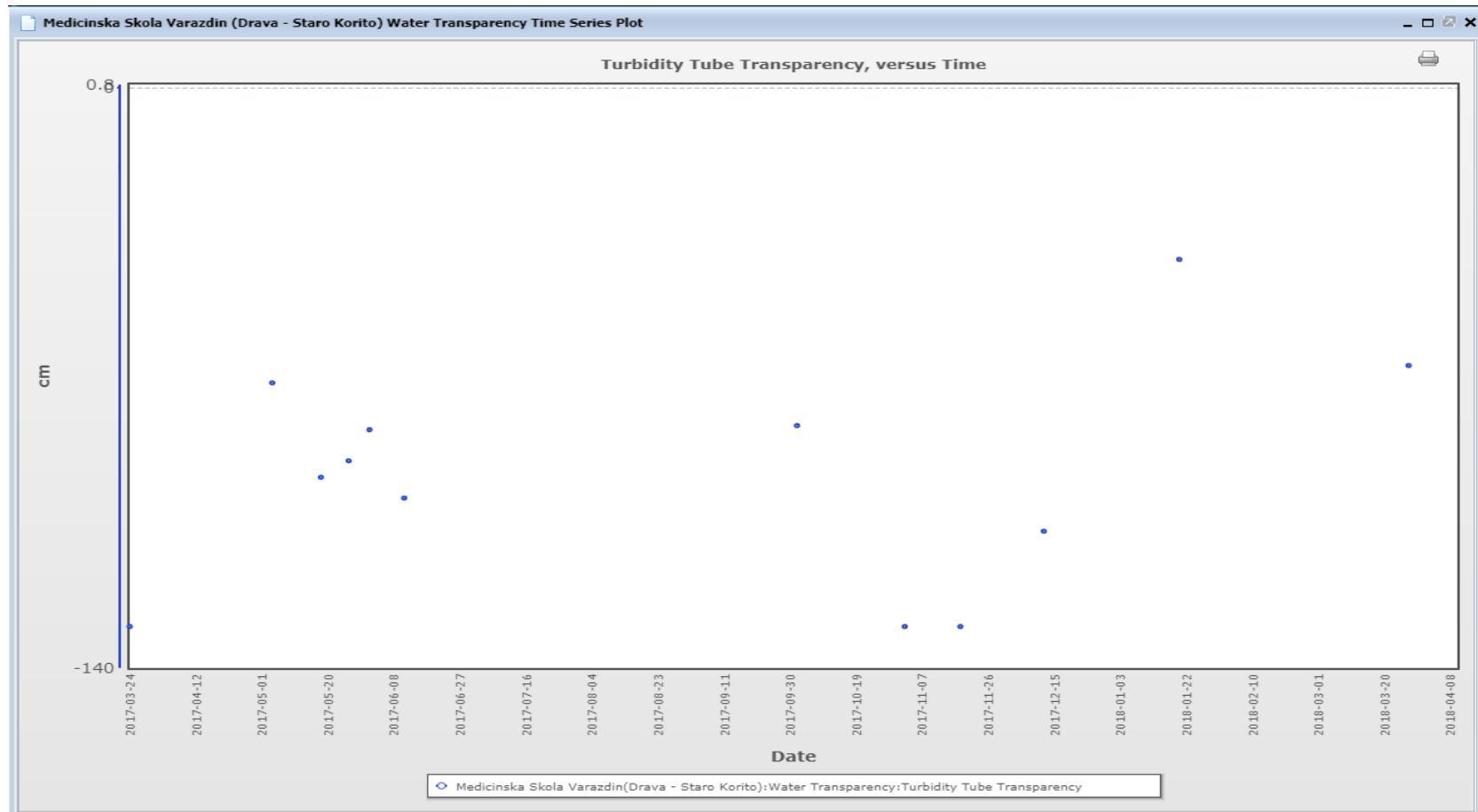
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# Drava (staro korito) - Transparency



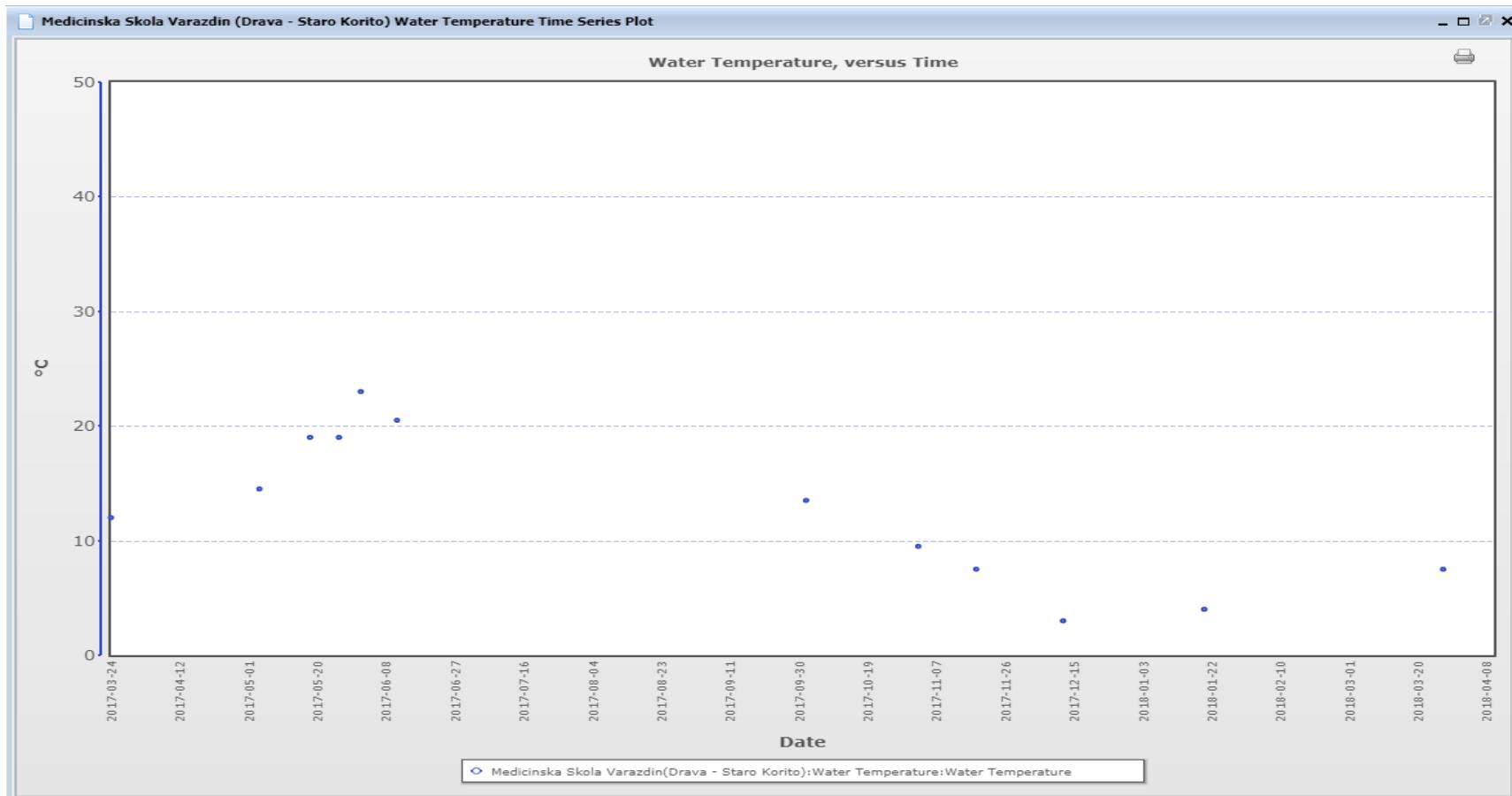
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# Drava (staro korito) - Temperature



# Our Research on Water in Our Environment

- ❖ We have found that the water quality in the rivers is actually very good
- ❖ We have determined that Plitvica is in the second category of water quality
- ❖ Most parameters are within the range of the first category but the high nitrate and nitrite concentrations lower the water quality

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Tihana Vlahek

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