

**Nueces River Authority - Clean Rivers Program  
Steering Committee and Stakeholder Update #7  
March - May 2015**

June 8<sup>th</sup>, 2015

Dear Steering Committee Members and Stakeholders,

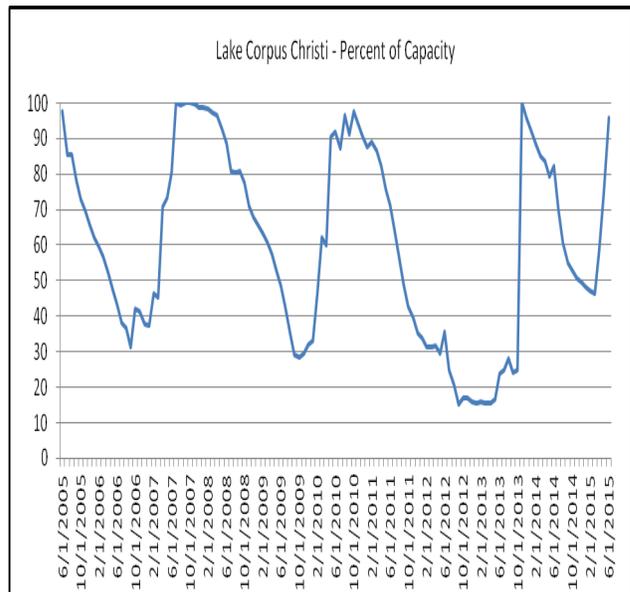
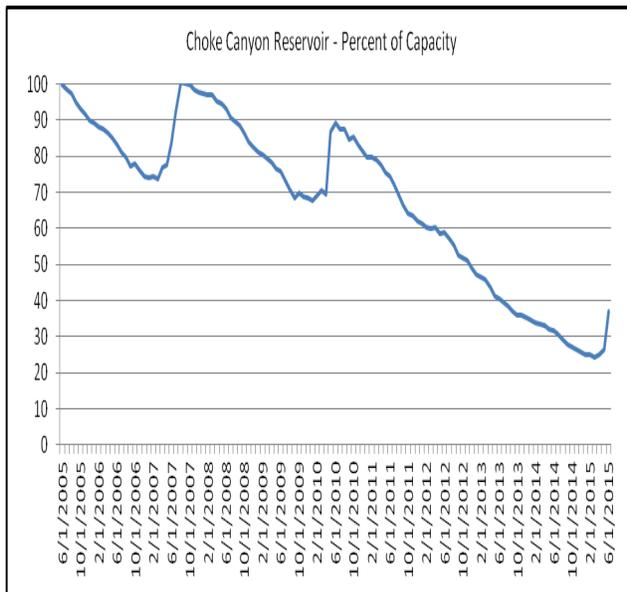
This is the seventh of an ongoing series of quarterly email updates for the Nueces River Authority's FY 2014 – 2015 Clean Rivers Program. Related activities throughout the area are also discussed.

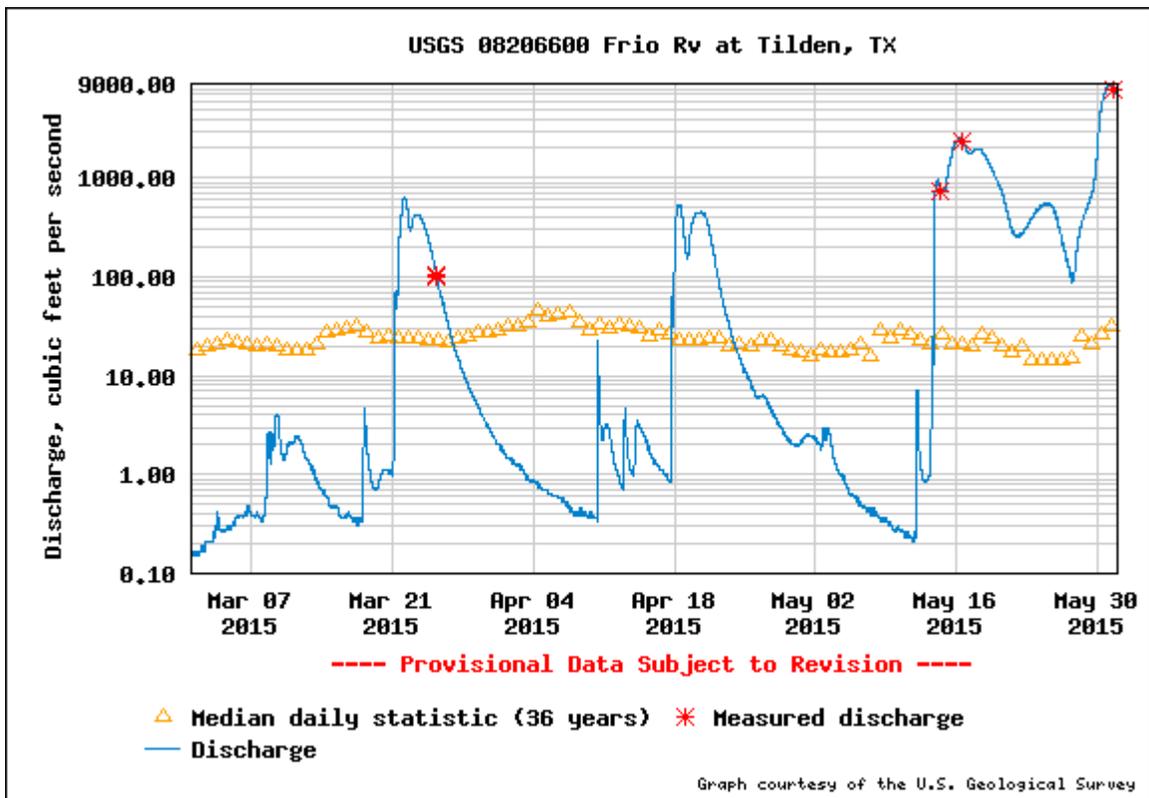
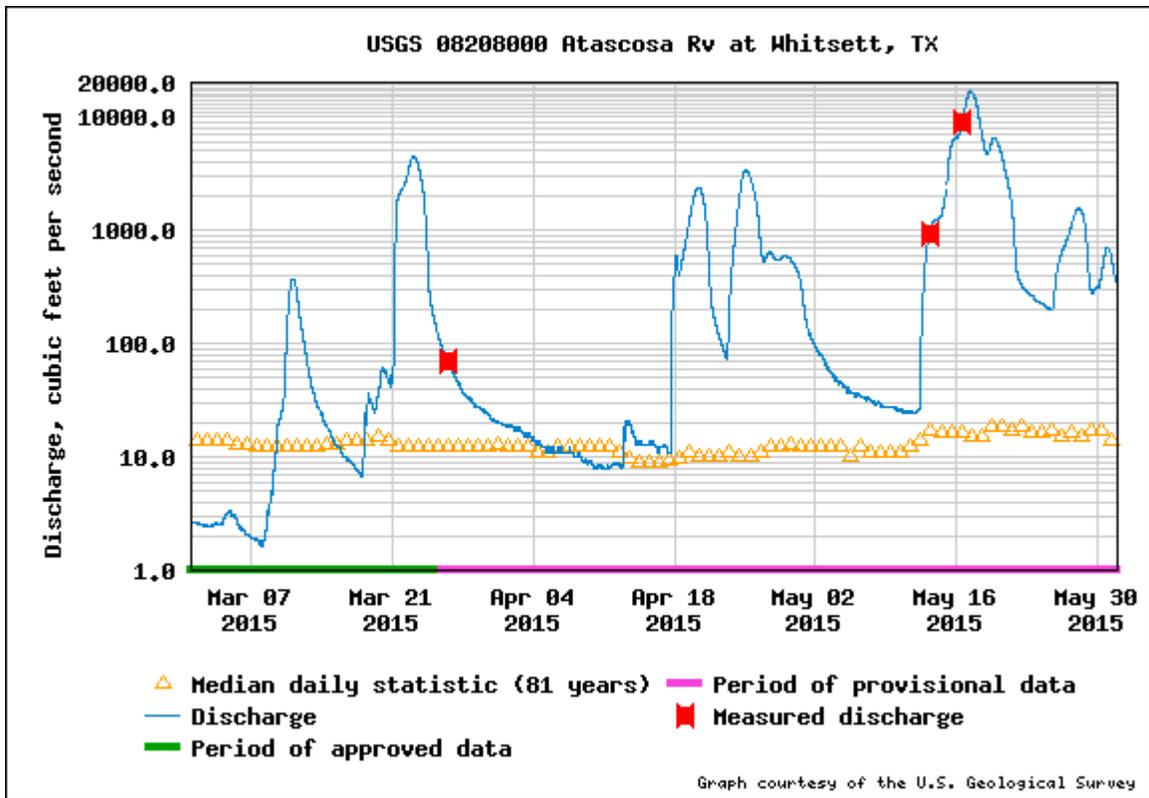
**CRP Routine Monitoring**

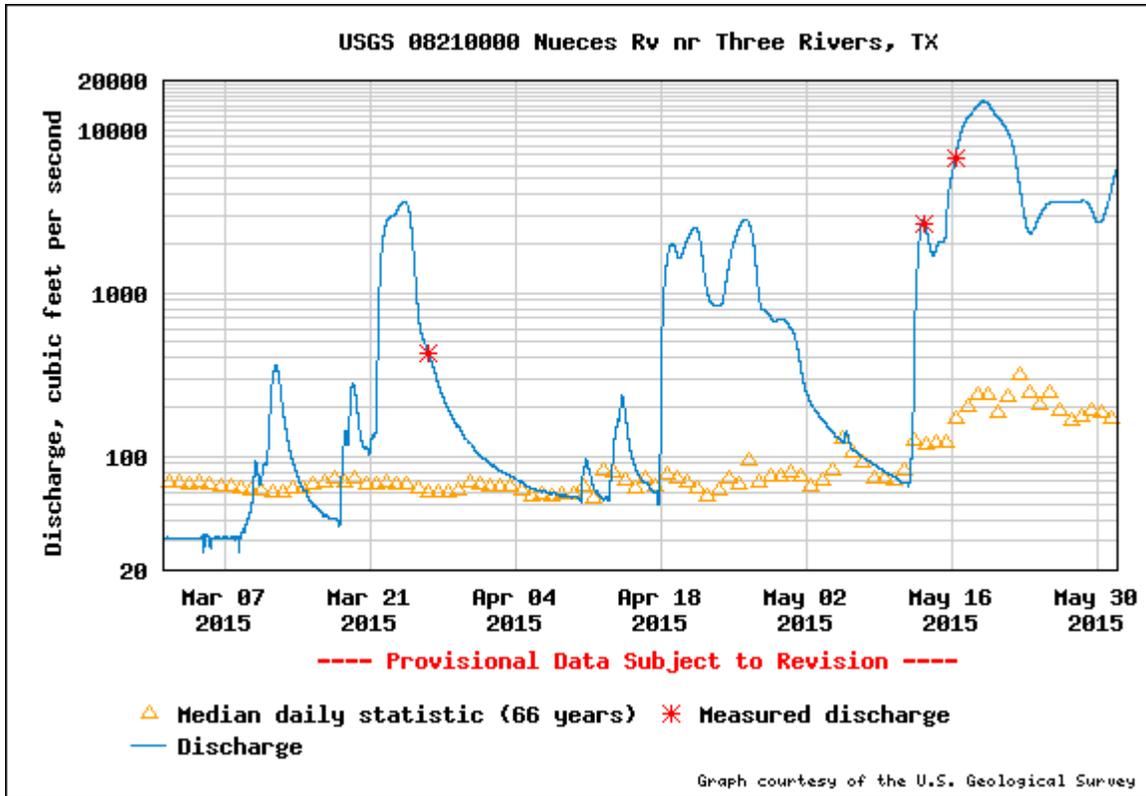
During the 7<sup>th</sup> Quarter (March through May 2015), NRA conducted routine monitoring at 39 stations; Leona River near Uvalde was still dry. No 24 hour dissolved oxygen monitoring occurred in the quarter. The boat ramp that NRA uses to monitor the Northern end of Lake Corpus Christi (Station ID 17384) had sufficient water to launch the boat. The floating plants (duckweed and mosquito fern) that were observed the last two quarters at the Nueces River South of Tilden (Station ID 12973) were not present at the site visit on April 28th.

**Spring rain in the Nueces River Basin**

The long awaited rains finally came through for the Nueces River Basin. At the beginning of the quarter, the combined capacity of the Reservoir System (Choke Canyon + Lake Corpus Christi) was 30.1%. By the end of May, the combined capacity of the reservoir system had risen to 51.3% with water still flowing into the reservoirs.







### Wildlife Observed

NRA came across these guys while out monitoring the water quality. The picture below (bottom left) is most likely the non-venomous diamondback water snake (*Nerodia rhombifer*) that was spotted on Poesta Creek near Beeville. It's often mistaken as the venomous water moccasin/cotton mouth but we didn't get close enough to find out for sure. Also, at the Nueces River just downstream from Three Rivers, we spotted a juvenile American alligator (*Alligator mississippiensis*). He was approximately 4 feet long (bottom right).

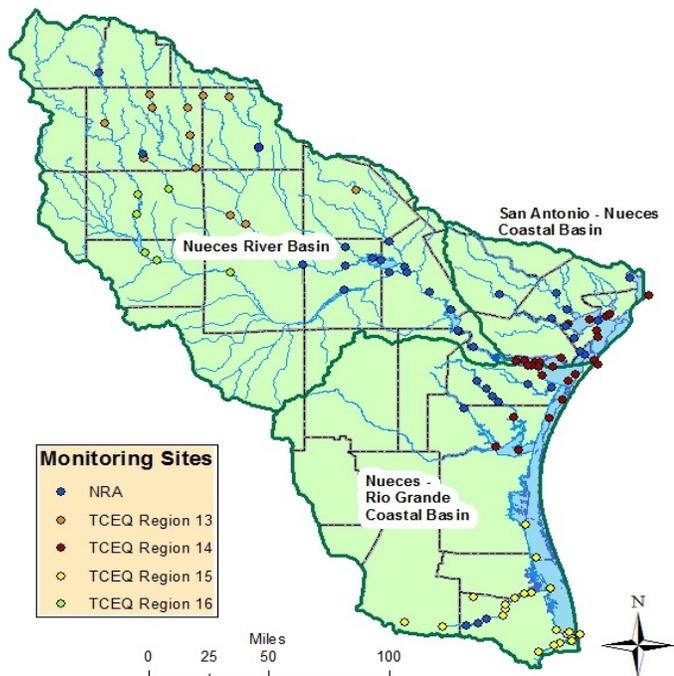


## Coordinated Monitoring Meeting (CMM)

The Annual Clean Rivers Program (CRP) Coordinated Monitoring Meeting was held on April 23<sup>rd</sup> in Corpus Christi. Representatives from TCEQ Regions 13-16 as well as staff from the Central Office were in attendance to provide comments and suggestions for monitoring activities for Fiscal Year 2016.

Region 13 (San Antonio) and Region 14 (Corpus Christi), and NRA offices dropped a number of monitoring stations in the watershed and along the coast. Region 13 is planning on keeping monitoring stations that have listed impairments and dropping a number of sites in the Hill Country

where there are no concerns or impairments. Region 14 planned to reduce the number of sites that were in the same assessment units to reduce redundancy of monitoring activities. NRA also dropped two sites for the same reason, to reduce redundancy of data coming from the same assessment units. NRA is in the process of coordinating with the Bandera County River Authority (BCRA) to acquire a few key historical monitoring sites up in the Hill Country (Seco Creek, Hondo Creek, and the Sabinal River). Although the BCRA does not get funding from the Clean Rivers Program, they do conduct monitoring and have offered to fill in some of the data gaps and share data they acquire. We owe the BCRA a big thank you.



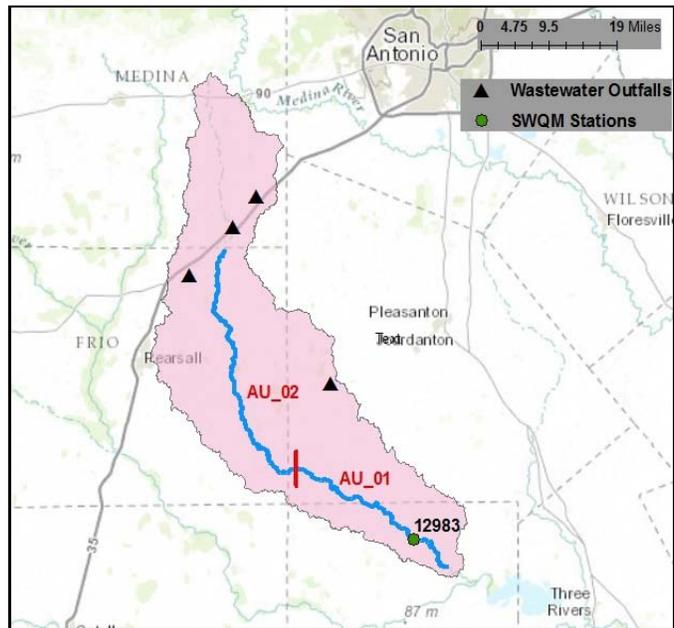
## Petronila Creek Tributary Study

Petronila Creek (Segment 2204), is a stream approximately 44 miles long that flows into Alazan Bay, a small bay opening onto Baffin Bay. The creek was listed on the 2000 Texas 303(d) list of impaired water bodies for exceeding the standards for chloride (1,500 mg/l), sulfate (500 mg/l), and total dissolved solids (TDS) (4,000 mg/l). Field investigations identified that excessive chloride, sulfate, and TDS concentrations occur in the downstream section of the creek, southeast of US 77, in an area where man-made nonpoint sources such as produced water, brine pits, and brine injection wells, related to oil and gas production, are most numerous. In support of the Implementation Plan (I-Plan) for Petronila Creek, NRA began a monthly monitoring project that examines the amount of chloride, sulfate, and TDS present in surface waters of Petronila Creek and many of the tributaries that drain into it. Field and lab data collected so far indicates the contribution of salts to be a widespread occurrence downstream of US-77.



## San Miguel Recreational Use Attainability Analysis

In 2006, San Miguel Creek (Segment 2108), which flows 66 miles from Choke Canyon Reservoir in McMullen County to the confluence of Perez Creek and Chacon Creek in Frio County was identified as being impaired for having *E. coli* bacteria concentrations that exceed state water quality standards. To determine if the correct standard is being applied to the water body, the Texas State Soil and Water Conservation Board (TSSWCB) contracted with NRA to conduct a Recreation Use Attainability Analysis (RUAA) to determine if recreation is occurring on the stream. The project kicked off in November 2013. Sites surveys scheduled to take place in mid-May had to be postponed due to the rain and subsequent flooding that occurred in April and May. NRA will reschedule the site surveys as soon as the creek gets back to typical low flow conditions. For more information please visit the project website. <https://www.nueces-ra.org/SMC/>



## Nueces River Watershed Partnership - Development of the Lower Nueces River Watershed Protection Plan

The ground truth survey of the hyacinth colonies was conducted on March 4, 2015. The original estimate of about 1% coverage was confirmed. However, with the flooding that began mid-May, and is expected to continue to about mid-June, the amount of distribution of the colonies is most likely drastically different. A second aerial survey is still planned for this summer.

The Nueces River Preservation Association began marking and identifying items of interest picked up on the side-scan sonar. We will have to wait for the flood waters to recede to find out if these items are still in the same location. Unfortunately, there is probably additional debris because of the flooding and inundation of the communities along the river.



The Watershed Protection Plan is coming together – chapter by chapter. Drafts ready for review are available at <http://www.nuecesriverpartnership.org/pubs.php>.

Nueces River Watershed Partnership meeting dates are posted in the ‘Announcements, Meetings, and Workshops’ section on our homepage, <http://www.nueces-ra.org>. For more information about the Partnership and the development of the Watershed Protection Plan, visit <http://www.nuecesriverpartnership.org> or contact Rocky Freund at (361) 653-2110 or [rfreund@nueces-ra.org](mailto:rfreund@nueces-ra.org).

### **Riparian for Lunch**

Key riparian lessons will be served up in a series of lunch hour talks focused on the Oso Creek and the Oso bay. The talks are free. They are being offered by the Nueces River Authority with funding from the Texas Clean Rivers Program and the Texas Commission on Environmental Quality. Creeks and wetlands have a natural way of cleaning water and maintaining their quality and quantity. These processes will be discussed along with visual examples of functional riparian and wetland areas. The lunches are on Tuesdays. For more information, contact Sky Lewey [slewey@nueces-ra.org](mailto:slewey@nueces-ra.org).

### **EQIP Program**

The USDA-Natural Resources Conservation Service (NRCS) announces the 2015 NRCS South Texas Land and Water Initiative that will be funded through the Environmental Quality Incentive Program (EQIP) along portions of the Nueces River watershed. NRCS will be working with the Nueces River Authority (NRA), Texas Agricultural Land Trust (TALT), Coastal Bend Bays and Estuaries Program and Texas A&M Institute of Renewable Natural Resources and private landowners to provide specialists and funding to protect and restore the natural resources that are being threatened at an alarming rate by fragmentation and land disturbances in the Nueces River basin.

The Nueces River basin, associated coastal basins, bays and estuaries comprise about 31,500 square miles of Texas that stretches from the Texas Hill Country to the Gulf of Mexico. Counties include Atascosa, Bandera, Bee, Duval, Frio, La Salle, Jim Wells, Live Oak, McMullen, Medina, Nueces, Real, San Patricio, Uvalde and Zavala.

Approximately 60 percent of the Edwards Aquifer recharge comes from the upper Nueces basin and most of the freshwater inflow to the lower Gulf of Mexico comes from the streams. In the 2013 Texas Water Quality Assessment, 49 of the 54 classified water bodies that drain into these basins have documented water quality concerns or impairments. Record drought, land fragmentation, and the land disturbance with oil and gas exploration and production in the Eagle Ford Shale formation, have created the “Perfect Storm” for degradation of natural resources, primarily water quality and quantity.

“With the dedication of EQIP funds and staff to the geographic area encompassing a large portion of the Nueces River basin, land managers will be able to develop a plan tailored to their land and their goals to help them implement and maintain conservation practices that will benefit them now and for generations to come,” said Salvador Salinas, Texas NRCS State Conservationist. “Landowners installing conservation practices not only contribute positively toward water quality and water quantity, but will eventually see the benefits of time saved, and reduced labor and costs as well as increased production.”

A conservation plan is a written record of your management decisions and the conservation practices and system you plan to use and maintain on your land. Carrying out your plan will achieve the goals of protecting the environment on and off your property. All NRCS services and programs are voluntary and offered to agricultural landowners without a fee.

For more information about getting a conservation plan on your property, contact the local USDA-NRCS office or visit [www.tx.nrcs.usda.gov](http://www.tx.nrcs.usda.gov) for more information.

### **Regional Texas Stream Team**

The Center for Coastal Studies at Texas A&M University – Corpus Christi, Nueces River Authority, Coastal Bend Bays Foundation, and Texas Stream Team at The Meadows Center for Water and the Environment, are working together to develop a Regional Texas Stream Team volunteer monitoring group. As more water quality issues are being addressed in this area (Oso Creek, Oso Bay, Petronila Creek, Lower Nueces River, etc), volunteer water quality monitoring is playing a larger role in the process.

Texas Stream Team is a statewide network of citizen scientists and supportive partners working together to gather information about natural resources. Texas Stream Team is administered through a cooperative partnership between The Meadows Center for Water and the Environment, the Texas Commission on Environmental Quality, and the U.S. Environmental Protection Agency.

Texas Stream Team will hold an informational **Regional Stakeholder Meeting** at **The South Texas Botanical Gardens and Nature Center** located at 8545 S. Staples St. in Corpus Christi on **Thursday, July 30th from 5:30 p.m to 7:30 p.m.**

For those that are interested in participating in Texas Stream Team, there will be a **FREE Water Quality Monitoring Training on Friday, July 31st from 1:00 p.m. to 5:00 p.m.** at **The South Texas Botanical Gardens and Nature Center**. After the training, you will be a certified Texas Stream Team Citizen Scientist who can collect water quality data for local water protection projects.

For questions about the meeting or training, please contact Erin Hill [erin.hill@tamucc.edu](mailto:erin.hill@tamucc.edu) 361-825-5791.

### **Outreach and Education**

NRA's Education and Outreach Program reached out to 6,068 people from March through May using custom made tools including NRA's watershed, rainwater, and groundwater models. For more information about outreach and education, contact [slewey@nueces-ra.org](mailto:slewey@nueces-ra.org).

### **Arroyo Colorado Watershed Partnership**

Unfortunately, NRA was not able to attend the Arroyo Colorado Watershed Partnership Steering Committee meeting on April 23<sup>rd</sup> due to a conflict of schedule. More information please email Jaime Flores at [jjflores@ag.tamu.edu](mailto:jjflores@ag.tamu.edu).

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