

**coronavirus developments**

**County declares emergency; first Marin patient tests positive; Tiburon residents are on Hawaii cruise ship**

There are no confirmed community-transmission cases of coronavirus disease 2019, or COVID-19, in Marin County or among Marin residents, according to the Marin Department of Health and Human Services, as of The Ark's press time March 9.

Public officials announced March 9 that the first Marin resident has tested positive for the illness — through travel-related infection. The patient, described as an older man, was among the 56 Marin residents exposed to the virus while on a Princess cruise between San Francisco and Mexico Feb. 11-21. A second Marin resident experiencing respiratory issues has also been hospitalized and tested, but the results are pending.

A 71-year-old Placer County man, who had underlying health conditions, tested positive after returning from the same cruise and later died March 4, becoming California's first death.

While that man disembarked on his return to San Francisco, several dozen people stayed aboard the same ship as it embarked on a cruise to Hawaii and Ensenada. Some 21 people on the ship have tested positive for the coronavirus, and the ship was to dock at the Port of Oakland on March 9. All passengers were to be quarantined for 14 days; California residents will go to an in-state facility for testing and isolation, while non-residents will be transported to other states.

Tiburon Peninsula residents are reportedly on the Hawaii cruise and are set for isolation.

Overall, 14 symptomatic Marin residents have been test-

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**on the web**

Get developments about COVID-19 in Marin and on the Tiburon Peninsula at thearknews.com

**coronavirus**

**Girls engineering club educates peers, looks at responses to virus**



RACHEL SIMPSON PHOTOS / FOR THE ARK

Del Mar Middle School students Catalina Wood (left) and Hannah Lacey assemble polypropylene respirators before school March 6. The Girls Engineering Team at Del Mar has been meeting before school, during lunch and on weekends in an effort to educate their peers about coronavirus while also experimenting with ways to respond to the threat of infection. In addition to creating a video to show to their fellow students that explains what the virus is and how to avoid spreading it, the girls have been using laser cutters and 3-D printers to create the N95-replica respirators and are also trying to replicate hazmat suits.

*Del Mar students meeting during lunch, after hours to create video and replicate respirators, hazmat suits*

By **EMILY LAVIN**  
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Nearly two-dozen girls at Del Mar Middle School are aiming to educate their peers about the coronavirus while also using their science and engineering skills to experiment with ways to respond to the threat of infection.

The 21 members of the school's Girls Engineering Team are creating a video about best practices for preventing the spread of the virus that they hope to share with their fellow students at Del Mar.

They've also been using laser cutters and 3-D



Del Mar Middle School students Chloe Kulik and Alexandra Wood don hazmat-suits and N95 respirators, which they used as models to create replicas.

printers to make polypropylene facemasks, are trying to replicate hazmat suits and are working to secure materials to make hand sanitizer.

"Our goal is not to create a panic but to educate

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**election 2020: tiburon town council**

**Jack Ryan is holding the lead in three-way council race**

By **DEIRDRE MCCROHAN**  
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Hawthorne Drive resident Jack Ryan is holding a narrow lead in a three-way race for a vacant seat on the Tiburon Town Council.

As of The Ark's March 9 press deadline, Ryan had 36.3 percent of the vote in the March 3 special election, but his lead was just 90 votes over Planning Commissioner Daniel Amir, who had 32.7 percent, while Amir's commission colleague Kathleen Defever was

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**election 2020: measure e**

**Belvedere voters approve ballot measure to fund fire services**

By **HANNAH WEIKEL**  
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A measure that allows Belvedere to continue to spend a property tax that helps fund its contract for fire and emergency medical services won approval by a wide margin in the March 3 election.

Measure E, which required a simple majority of Belvedere voters, garnered 77.5 percent approval based on results last updated March 6.

The initiative is neither a new tax nor an

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our community about sensible ways to prevent the coronavirus from spreading,” says Del Mar teacher Nate MacDonald, who runs the girls engineering club. “I always tell my students that they are the least likely ones to get sick or to have serious symptoms, but it’s our job not to spread it because we have family members and community members that are very vulnerable.”

MacDonald, who is in his second year teaching the design lab class at Del Mar, started the Girls Engineering Team last November as an outlet for girls passionate about science. At the beginning of the year, the group started brainstorming ideas for a project that could benefit the community. They had originally planned to focus on a wildfire-prevention project but shifted gears after the global coronavirus outbreak.

“The students started having a strong interest in that and were getting concerned,” MacDonald says.

There have been more than 113,000 cases worldwide of COVID-19, the disease caused by coronavirus SARS-CoV-2, and nearly 4,000 deaths. That includes 124 cases in California, including 74 in the Bay Area, and one death.

No confirmed community-transmission cases of COVID-19 have been reported in Marin County or among Marin residents as of The Ark’s press time March 9, though county health officials declared a local healthy emergency last week.

MacDonald says his engineering team started ordering supplies to have and distribute, but when they couldn’t buy them — the virus outbreak has caused a global shortage of N95 respirators and other face-masks — they started researching and gathering materials to make their own.

The girls are using laser cutters to cut fabric and polypropylene for the masks “so it’s quicker and more efficient and easier to put together, so it’s more exact,” says sixth-grader Hannah Lacey.

They found a design for the nose clip online and have been using 3-D printers to create that plastic piece and hot glue to assemble the finished product.

The masks are made of the same materials as the N95 respirators, MacDonald says.

“It’s not quite at the level of an N95 mask, so we’re not going to call it an N95 mask, but they are better than normal nursing masks,” MacDonald says.

The group, which is aiming to make 500 masks, originally hoped to get them certified to distribute to health professionals but realized last week that would take too long to do. So they shifted gears. MacDonald says he reached out to local retirement communities that have expressed interest in receiving the masks.

The CDC and U.S. surgeon general do not recommend the general public wear N95 respirators or other facemasks, such as surgical masks, to protect against coronavirus, saying there is no added health benefit to the protective gear and reiterating the immediate risk of the virus is considered low.

N95 respirators can block viruses, but surgical masks cannot. Health-care providers, who are in close contact with the ill, wear masks and respirators in part to limit immediate exposure to mucus and droplets from coughs and sneezes.

Health experts note specifically that, among the general population, N95 masks are often worn improperly — facial hair can prevent a seal, while health-care profession-



RACHEL SIMPSON / FOR THE ARK

**From left, Del Mar Middle School students Chloe Kulik and Catalina and Alexandra Wood don hazmat suits and N95 respirators before school on March 6. The Girls Engineering Team at Del Mar has been meeting during lunch and after hours to create an educational video and to build their own protective equipment in response to the global coronavirus outbreak.**

als must undergo strict fit testing — and that they can create a false sense of security, unintentionally causing people to believe they’re safer from infection in larger social situations. There is also no data to support that respirators and masks limit people from touching their face and mouth; in fact, U.S. Surgeon General Jerome Adams says poor fitment among mask-wearers can lead people to touch their faces more often and increase the risk of spread.

Instead, the center has stressed everyday preventive actions, such as hand washing, to help prevent the spread of respiratory diseases.

Marin County Public Health Officer Matt Willis did not respond to a request for comment by The Ark’s press deadline.

MacDonald says the group is aware of the CDC’s recommendation.

“Our message is that people do not need to buy or wear masks unless you’re treating patients with coronavirus or you suspect that you have coronavirus,” he says. “We don’t want to create a shortage and have people running out to buy them, so we’re also trying to educate people about that piece as well.”

At the same time, he says, he thinks the students’ masks could be helpful in “protecting the elderly, who are the most vulnerable” to the virus.

On March 6, the girls in the engineering group filed into MacDonald’s classroom before school to continue working on the project. The club typically meets once a week during lunch and one weekend day each month. Since starting the project, they’ve been meeting three days a week before school and at lunch and for three hours on Sundays.

Several of the girls immediately got to work assembling masks, while others started to cut out the material they’re using to try to replicate the hazmat suits. MacDonald says it’s unlikely the students will be able to create a suit that would be certified for use by health professionals but noted “the group is excited about those and experimenting with it, so we’ll see where those go.”

Meanwhile, others in the room gathered

around an iPad to continue working on the educational video, which explains the origin of the virus and how to protect against it. The video was set to be approved by the school’s administration and shown to students during their extended-homeroom advisory period this week.

“This was going to start off as a small community project, learning what we could do to help,” says sixth-grader Chloe Kulik. “Now I feel like it’s kind of escalated into something bigger.”

She says working on the masks and other elements of the project has been rewarding.

“It’s cool to be able to make something that you know is going to help someone or yourself,” she says.

Hannah agreed.

“I like knowing that we can help people and that they’re not suffering because suffering is really annoying,” she says.

Both Hannah and Chloe says they had learned more about the virus since taking on the project.

Chloe says she hadn’t realized how contagious the virus can be, noting she’s now careful to sanitize or wash her hands after almost every class at school.

“I feel like we learned a lot about how easy it could spread and how dangerous it could be, and now we’re talking all these extra precautions,” she says.

Hannah says she learned how the virus originated in Wuhan, in China’s Hubei province, and “spiraled” from there.

“I feel like it’s kind of like another epidemic because no one knows the cure for it yet, and we’re just kind of scrambling around trying to hope that we can find something,” she says.

She says she liked experimenting with different solutions and brainstorming ways to help prevent the spread of the virus.

“I think actually protecting people from catching the virus and giving them a chance not to catch it is better than just hoping that they don’t,” she says.

Del Mar Principal Brian Lynch says there’s been some general concern among parents at the school about the virus. In a March 4

email to parents, district Superintendent Nancy Lynch, no relation to Brian Lynch, said the district is reviewing best practices on how to prepare for or mitigate spread of the virus, including updating its emergency plans, promoting hand washing, monitoring absenteeism and performing routine environmental cleaning.

County Department of Public Health officials have said there is no current recommendation to cancel school gatherings or field trips in Marin.

“I think what’s reassuring is, and what’s in the news is, that kids seem to be the least impacted,” Brian Lynch says.

He noted it’s been exciting to see the enthusiasm the girls have had for their engineering projects since the club formed at the beginning of the year.

“I’ve been surprised at the robustness of it, the volume of interest,” he says, noting the girls have spent significant time outside of school working on the project related to coronavirus.

He says the school makes a point to challenge students to use what they’ve learned in the classroom to impact the community.

“That’s the message they’ve been given, and they’ve taken that and they’ve run,” he says.

MacDonald says the enthusiasm the girls have for the project is exactly the type of excitement about science, technology and engineering he was hoping to foster when he organized the club.

“The goal is to get our girls engaged in an engineering cause that they’re passionate about,” he says. “This is a great avenue for them to get engaged and try to build their desire to enter the STEM field. We need to get more girls involved in engineering. Right now it’s dominated by males. Girls and women bring a different perspective in solving problems, and we need to bring them into the problem-solving room.”

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