



SERRANO CREEK RANCH EQUESTRIAN CENTER



25200 Trabuco Rd, Lake Forest, Ca 92630
serranocreekranch@msn.com
(949) 768-5921

To all the Boarders at SCR
THANK YOU!!!!

The Workers' Holiday Fundraiser
was the best one to date!!!

On Sunday Dec. 19th, 2021, we ended the collection
for the workers with a total of \$6,250. Each of the 10
workers received \$625.00!!!

We are truly amazed at the generosity you showed
for these wonderful workers!!

The workers go beyond our expectations throughout
the year and this special gift we give to them shows
our appreciation for all they do!!

Thank you so much!!!!

Have a wonderful Holiday Season!!

-Lois, Jan, and Megan



JAN 2022 NEWSLETTER

IN THIS EDITION:

- Thank you
- Rainstorm News
- Reminders
- Welcome Perla
- Pay With Zelle
- Sassy's Memorial
- Toys For Tots

News From The Weather Front

-Matt Rayl

I have always had a fascination with meteorology. Since our settlement with CoastKeeper and the Stormwater Management Pollution Prevention Plan (SWPPP) that was born from the settlement, that fascination has turned into a job requirement. So while I'd love to share with you all of the hundreds of

captivating pages in the SWPPP, for now, I'll focus on the concept of a "storm event" that is a pillar of it.

Every part of the country has a statistical table of the odds of a certain amount of rain over a certain period. I have reproduced our location's table to follow along in this article. In our SWPPP, certain parts of the stable are not

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POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches) ¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.129 (0.108-0.155)	0.168 (0.141-0.203)	0.222 (0.186-0.268)	0.267 (0.221-0.325)	0.330 (0.264-0.417)	0.380 (0.297-0.491)	0.433 (0.329-0.574)	0.488 (0.361-0.668)	0.567 (0.401-0.810)	0.630 (0.430-0.934)
10-min	0.185 (0.155-0.222)	0.241 (0.202-0.291)	0.318 (0.266-0.384)	0.382 (0.317-0.466)	0.473 (0.378-0.598)	0.545 (0.426-0.704)	0.620 (0.472-0.823)	0.700 (0.517-0.957)	0.813 (0.575-1.16)	0.904 (0.616-1.34)
15-min	0.223 (0.188-0.269)	0.292 (0.245-0.352)	0.385 (0.322-0.465)	0.463 (0.383-0.564)	0.572 (0.457-0.723)	0.659 (0.515-0.851)	0.750 (0.571-0.995)	0.847 (0.626-1.16)	0.983 (0.695-1.40)	1.09 (0.745-1.62)
30-min	0.316 (0.265-0.380)	0.413 (0.346-0.497)	0.544 (0.455-0.657)	0.654 (0.542-0.797)	0.808 (0.646-1.02)	0.931 (0.728-1.20)	1.06 (0.807-1.41)	1.20 (0.885-1.64)	1.39 (0.982-1.99)	1.54 (1.05-2.29)
60-min	0.435 (0.365-0.524)	0.569 (0.477-0.685)	0.749 (0.626-0.906)	0.901 (0.746-1.10)	1.11 (0.890-1.41)	1.28 (1.00-1.66)	1.46 (1.11-1.94)	1.65 (1.22-2.25)	1.92 (1.35-2.74)	2.13 (1.45-3.15)
2-hr	0.631 (0.530-0.759)	0.819 (0.687-0.987)	1.08 (0.901-1.30)	1.30 (1.08-1.59)	1.62 (1.29-2.05)	1.88 (1.47-2.43)	2.15 (1.64-2.86)	2.45 (1.81-3.35)	2.89 (2.04-4.12)	3.24 (2.21-4.80)
3-hr	0.784 (0.658-0.943)	1.01 (0.850-1.22)	1.33 (1.12-1.61)	1.61 (1.33-1.96)	2.01 (1.61-2.54)	2.34 (1.83-3.02)	2.69 (2.05-3.56)	3.07 (2.27-4.20)	3.63 (2.56-5.18)	4.09 (2.79-6.06)
6-hr	1.11 (0.933-1.34)	1.44 (1.21-1.73)	1.89 (1.58-2.29)	2.28 (1.89-2.78)	2.84 (2.27-3.59)	3.30 (2.58-4.27)	3.80 (2.89-5.04)	4.33 (3.20-5.92)	5.11 (3.62-7.31)	5.76 (3.93-8.54)
12-hr	1.46 (1.23-1.76)	1.91 (1.60-2.30)	2.52 (2.10-3.04)	3.03 (2.51-3.70)	3.76 (3.01-4.75)	4.34 (3.40-5.61)	4.96 (3.78-6.58)	5.62 (4.15-7.68)	6.54 (4.63-9.35)	7.30 (4.97-10.8)
24-hr	1.93 (1.70-2.22)	2.54 (2.24-2.94)	3.37 (2.97-3.91)	4.07 (3.55-4.75)	5.04 (4.26-6.07)	5.80 (4.81-7.14)	6.60 (5.34-8.31)	7.44 (5.86-9.63)	8.61 (6.52-11.6)	9.55 (6.99-13.3)
2-day	2.35 (2.08-2.72)	3.14 (2.77-3.63)	4.21 (3.70-4.88)	5.10 (4.45-5.96)	6.35 (5.37-7.66)	7.35 (6.09-9.04)	8.39 (6.79-10.6)	9.49 (7.48-12.3)	11.0 (8.35-14.9)	12.3 (8.98-17.1)
3-day	2.56 (2.26-2.95)	3.44 (3.04-3.98)	4.63 (4.08-5.37)	5.64 (4.93-6.59)	7.06 (5.98-8.52)	8.20 (6.80-10.1)	9.39 (7.60-11.8)	10.7 (8.40-13.8)	12.4 (9.42-16.8)	13.9 (10.2-19.3)
4-day	2.76 (2.44-3.19)	3.73 (3.29-4.31)	5.05 (4.44-5.85)	6.16 (5.38-7.19)	7.73 (6.54-9.33)	8.99 (7.46-11.1)	10.3 (8.36-13.0)	11.7 (9.25-15.2)	13.7 (10.4-18.5)	15.4 (11.2-21.4)
7-day	3.16 (2.80-3.65)	4.29 (3.79-4.96)	5.83 (5.14-6.76)	7.14 (6.24-8.34)	8.99 (7.61-10.8)	10.5 (8.69-12.9)	12.1 (9.76-15.2)	13.7 (10.8-17.8)	16.1 (12.2-21.7)	18.0 (13.2-25.1)
10-day	3.43 (3.03-3.96)	4.67 (4.12-5.40)	6.37 (5.61-7.38)	7.81 (6.82-9.12)	9.86 (8.34-11.9)	11.5 (9.54-14.2)	13.2 (10.7-16.7)	15.1 (11.9-19.6)	17.8 (13.5-23.9)	19.9 (14.6-27.8)
20-day	4.10 (3.63-4.74)	5.64 (4.98-6.52)	7.76 (6.83-9.00)	9.57 (8.36-11.2)	12.2 (10.3-14.7)	14.3 (11.8-17.6)	16.5 (13.4-20.8)	18.9 (14.9-24.5)	22.3 (16.9-30.1)	25.1 (18.4-35.0)
30-day	4.85 (4.29-5.61)	6.69 (5.91-7.73)	9.24 (8.13-10.7)	11.4 (9.98-13.3)	14.6 (12.3-17.6)	17.1 (14.2-21.1)	19.9 (16.1-25.0)	22.8 (18.0-29.5)	27.1 (20.5-36.5)	30.6 (22.4-42.6)
45-day	5.74 (5.07-6.63)	7.88 (6.95-9.11)	10.9 (9.57-12.6)	13.4 (11.7-15.7)	17.2 (14.5-20.7)	20.3 (16.8-24.9)	23.6 (19.1-29.7)	27.1 (21.4-35.1)	32.3 (24.5-43.6)	36.6 (26.8-51.0)
60-day	6.64 (5.87-7.67)	9.04 (7.98-10.4)	12.4 (10.9-14.4)	15.3 (13.4-17.9)	19.6 (16.6-23.7)	23.1 (19.2-28.5)	27.0 (21.8-34.0)	31.1 (24.5-40.3)	37.2 (28.2-50.1)	42.3 (30.9-58.9)

SERRANO CREEK REMINDERS



Muck Buckets

Before any rain event, all the mucket buckets must be kept under either an aisle shelter or the stall's shelter to prevent rain from entering the muck bucket. For those stalls without aisle covers, your muck bucket must be kept under your shelter stall. If you feel this is a great inconvenience or safety issue, then don't put any material in the bucket when rain is predicted.

Speed Limit

Please remember that our speed limit is 5MPH on the stable ground and even slower when horses and riders are around. We ask that all trainers communicate this rule to their clients, we have seen student's parents drive fast as they are dropping off and picking up their kids. The office staff is doing their best to let the compost customers and delivery services know that they must drive 5MPH.

Blocking Access Roads

Lately, the office has seen more and more boarders and trainers parking in access roads, between stalls and tack sheds. These roads are used for maintenance and feeding only. The roads may be used by boarders only to load and unload feed or tack. We ask that once you have finished unloading and loading your item that you move your vehicle to the designated parking area.



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allowed to discharge any rainfall up to what is known as a 24 hour, 10-year event. On the chart, you see that this means that the trenches we are installing should collect and infiltrate 4.07" of rainfall in 24 hours.

A 10-year event does not mean it will rain 4.07" one time every tenth year, but instead, there is a 10% chance that a storm event of this size might occur in any given year. For example, if there is an average of 40 rain days (>.01") per year, then the odds of the next storm raining 4.07" is 1:400 (10 years x 40 rain days per year = 400.) Should it rain that much, it doesn't mean that we're now done for the next ten years. The following future storm still has the same 1:400 chance of raining 4.07". Think of rolling dice. While the last roll was snake eyes, that roll has no bearing on the next. The odds of again rolling snake eyes remain the same. The past does not influence the future— my apologies to all the psychologists out there.

Besides a 24-hour 10-year storm event, the previous chart shows a whole assortment of rain periods and amounts. Referring to it, the December 14th storm was quite powerful. So how big was it? Using SCR's rain gauge data, we can

TIME PERIOD	RAIN	STORM SIZE	ODDS
10:45- 11:00	0.57"	15 Min - 25 Year Event	1:400
10:30 - 11:00	1.06"	30 Min - 100 Year Event	1:4,000
10:15 - 11:15	1.29"	60 Min - 50 Year Event	1:2,000
9:15 - 11:15	1.58"	2 Hour - 25 Year Event	1:400
1 Day	2.63"	24 Hour - 2 Year Event	1:80

get a feel of the enormity of the rainfall that day. Below are the rainfall recordings for that day.

Per the recordings, the 1.06" rain falling in just 30 minutes is expected once per 100 years, or put another way, the odds are 1:4,000 of it happening. Hydrologically speaking, that morning was a powerful storm. As validation, if

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you traveled around Lake Forest that day, you experienced many road closures due to flooding. The intensity over a short period made it a powerful storm. The storm would have felt relatively mild if it rained evenly ($2.63"/24 \text{ hours} = .11" \text{ per hour}$).

There is a cost/benefit calculation for any infrastructure work, be it a bridge, culvert, dam, or stall infiltration trench. For example, does an engineer design a bridge that costs \$1X to withstand the flows from a 10-year event (1:400 chance with every storm). Or does the engineer design a bridge that costs \$2X for a 25-year event (1:1,000 chance of happening this year), or \$100x for a 1,000-year event (1:40,000 chance of happening)?

Since we do not possess infinite resources, some degree of risk must be acceptable in any construction project. For example, if the bridge-building budget is \$100X, we could build one bridge that would withstand a 1,000-year storm event. But doing so means that the option of building 50 25-year storm bridges is foregone. Engineers constantly struggle to be conservative and over-design structures yet only spend realistic amounts.

From 2019-2020, your SCR Water Quality Engineering Team did significant testing to determine the effect of the following :

- Various pollution sources at

the stable

- Pollution control costs
- The effects of differing storm event levels

Doing so, we were able to conclude that to prevent one pound of nitrogen from leaving the stalls cost \$7,159. On the contrary, to prevent one pound of nitrogen that originates from the walkways would cost \$1,102,006. Put another way, capturing that pound of nitrogen in a stall is 15,400% more cost-effective than capturing a pound from the stormwater originating from the walkways.

Even though SCR doesn't produce milk, chicken, hogs, etc., the language of these agricultural activities still applies to us. For example, in the stormwater lexicon, a horse stall is considered a *production area* because it can potentially discharge pollution off the property. Under the same classification, exposed feed and manure storage are also regarded as production areas because they can also discharge

In factory farms, walkways are also considered production areas. Looking at the flowing photos you'll see that these factory farm conditions have very manured walkways. They are as dirty as where the animals live and are obviously a production area.

After extensive scientific, legal, and economic discussions between SCR and CoastKeeper, an agreement

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Professional Services Directory



Leslie Thomson

Western Lessons
& Training
(949) 295-4807

Silver Stirrup Riding Academy

Beginning English,
Western, and
Camps
(949) 354-3603

MKO Performance Horses

Western & Barrel
Training/ Lessons
(949) 351-4706

Tom Betts-Aranda

Dressage Lessons
(949)291-8262

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Equine Inspired
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New Flight Counseling

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Equine Assisted
Counseling
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was reached that all rain up to 4.07" in a single day (24-hour, 25-year storm event) would be captured and infiltrated within each stall. In addition, all stored feed and manure/compost would be covered. Under Federal rules, exposed feed and manure is also considered a production area.



In our case, we forcefully argued that horse stables are unique in that the walkways are not sources of pollution and that the costs of capturing pollutants are not beneficial. We cited all the scientific data we collected from 2019-2020 to validate this assertion. In the end, the walkways were removed from the SCR production area classification. So in SCR's case, a stall is a production area and is defined by the pipe rails of the stall. The trenches we are installing are on the lower grade of the stall and will capture all of the production area runoff from that stall.

However, once there is exposed feed (meaning not in a weatherproof bin or covered metal trash can) outside the stall's limits, then the delineation of the production area can be expanded to include that small area as well. Being outside the stall limits means that our capture and control stormwater trenches will no longer capture all production area runoff.

You may notice that in preparing for rain and routine cleaning, we have begun blowing clean the walkways that have hard surfaces. This effort is so that these areas do not fall under the production area classification.

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So you might say, what's the big deal. Under the federal rules, any rainfall that touches exposed manure or feed is classified as production area runoff. Should that production area runoff mix with non-production area runoff, then magically, all the runoff is now considered production area the runoff. There is no minimum amount that makes this conversion. For example, any exposed feed in the walkway (which is outside our production area) would result in the entire facility's runoff becoming production area.

In early December, we had an inspection by Coastkeeper to view our efforts in building the trenches and preparing for a storm. For the most part, I am proud to say we received high marks for all the changes/improvements we have made. A single concern did come up. A few boarders had received hay deliveries which were stored exposed in the walkways outside SCR agreed on defined production areas. Since this hay was not in the weathertight bin, by definition, we now had expanded the production area outside that stall's confines. And as noted above, all runoff from the facility could be classified as a production area. For the 98% majority of stalls, we received high marks for the cleanliness of the storage areas outside the stall that ensured that the production area didn't extend beyond the confines of the stall.

All in all, we did very well other than this issue. We are doing a commendable job complying with both the letter and spirit of our SWPPP. We will always shoot for 110% compliance, so should we error, it will be considered de minimis when compared to SCR's total efforts. With each storm preparation and occasional inspection, we are doing better and better with

our efforts to be good environmental stewards.

A few folks will be contacted to ensure that this feed issue is resolved. As a guideline, any feed must be stored away immediately upon delivery. Would you please work with your delivery folks to put it away and not leave it outside.

As a reminder, each stall is allowed a single, weatherproof feed bin, a single metal trash can with a lid, and a muck bucket. During rain events, the muck bucket must either be inside the production area (inside your stall) or, if left outside, it must be upside down to ensure that no clean rainwater comes in contact. The breezeway stalls are exempt because their aisle is covered. Our goal is to keep SCR compliant and open for years to come. We all play an essential part in guaranteeing that SCR remains a model facility for the 21st century.



Welcome Perla

A barn cat is a vital role to the barn environment, as it is a wonderful way to control the rodent population. SCR will be working with Animal Service Center of Mission Viejo in taking in unadoptable stray cats. These cats are unable to socialize and adapt to an inside home lifestyle.

Meet Perla! Perla is a one-year-old domestic short-hair grey cat. She was rescued back in August and was found with a litter of 6 kittens, which they all have been rescued and rehomed.

Perla can be seen around near the front arena and in the parking lot. She is a very shy cat and will run away if you try to get close. We ask that you please do not feed her, as the office staff is doing so.



Pay with Zelle



A stable is a strange mix of the past and the future. We practice an art form that is centuries old, yet our computer records are backed up in several remote cloud locations. Decades ago, we mailed paper statements, and folks paid with paper checks. Newsletters were folded and stuffed in each bill. Now statements and newsletters are emailed out, and folks pay through

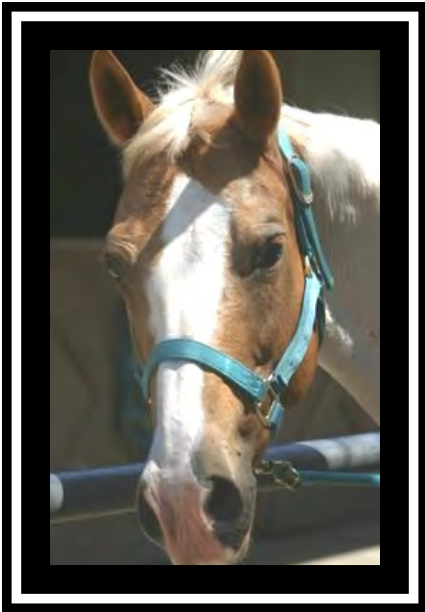
bank-generated checks or with credit cards.

As a new alternative, the stable is offering you the option of making your payment through your bank's Zelle application. With Zelle, you can pay your bill and then get a confirmation that the payment was made. All in a few minutes. Another advantage is that you can make a payment at the exact time you want, down to the minute. We will still take credit cards, but SCR pays a chunk of your bill to the credit card company for this convenience. When you pay with Zelle, you get the same convenience. For those who are interested in this method, but are intimidated by setting it up, our dedicated office staff will assist you. For others:

Email account:

serranocreekranch@msn.com

If you are asked for a name, then use **Teji Singh** (Matt's wife set this up)



“UP YOUR ASSETS”- AKA “SASSY”
5-23-1992 - 12-6-2021



“Rest in peace sweet girl”

Written By: Paula

Sassy came into my life after the very painful loss of my other mare. The timing was right and Sassy appeared. My first impression upon meeting her, was that she had the “face of an angel” and quickly learned that she truly had the disposition to go along with it. She was a highly intelligent, calm, kind and versatile mare, with a very sweet personality and just the right amount of “sassiness.” She was a true pleasure to ride and hang out with as well.

In 2018, Sassy was diagnosed with a bone cyst in her left knee. It was a challenging, chronic and progressive condition. However, she was exceptional in her willingness and ability to adapt to changes in her daily routine and activities, as she transitioned to semi-retirement and then full retirement. This allowed us to adequately manage her condition and maintain her quality of life. To Sassy’s delight, it also resulted in quite a bit of extra pampering.

As Sassy’s condition progressed, we made the decision to move her, along with Mike’s mare, “Lady Maija”, here to Serrano Creek. This enabled Sassy, to have a larger corral and more

freedom of movement. As soon as she adjusted to her new home here, she LOVED it, especially the perk of being in stall #1, so she was the first horse to be served at feeding time. She also liked being able to see everyone walk by and visit her, as well as keep track of everything going on around her.

Sassy loved her horse neighbors and developed sweet friendships with them. Being here at Serrano Creek, truly gave her a very special, happy and safe environment, to live out the rest of her life. She stayed with us, as long as she could, until her condition progressed to a critical point, resulting in the painful decision to let her go. This was done peacefully and with deep love for her.

Mike and I, would like to express our heartfelt gratitude, to everyone here at Serrano Creek, for all of the kindness, love and support we have received, as well as so many wonderful friendships. We truly LOVE it here too. It feels like a giant hug and being part of a very big and loving family.

Thank you all so much, with love,

Paula & Mike
“Sassy” & “Lady Maija”





Hi all, this years Toys for Tots toy drive event was yet another success! It seems to get better and better every year. This years toy drive filled three car loads, yes, **THREE CAR LOADS!** Toys for Tots is something very heart warming for myself and I'm sure many others, I've been donating toys for many years and I am so thankful that we were able to turn this into a drive for everyone to easily contribute to at our stables. Thank you to all who helped make this possible and all who donated. May we all have warm hearts knowing those in need will have smiling faces this holiday season. Unfortunately we were not able to get a photo with all of the toys, attached is a photo with about half of them. A major success! We thank you all and wish you all a very Merry Christmas, wonderful holiday season, and a happy new year!

Love,
Blaine, Lauren, and Leslie.

