COUNTY OF SONOMA
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT
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Attachment C

Department of Emergency Services

Chief Vern Losh
Sonoma County Department of Emergency Services
2300 County Center Dr., Suite 221A
Santa Rosa, CA 95403

RE: ORDER NO. R1-2008-0106, NPDES NO. CA00025054, DRAFT STORMWATER PERMIT

Dear Chief Losh:

The Department of Emergency Services would like to provide comments regarding the Sonoma County NPDES Phase I, Term III Draft Storm water Permit issued by the North Coast Regional Water Quality Control Board (NCRWQCB). Our comments will be regarding emergency response, fire training, hydrant testing and potable water discharges from fire and life safety equipment such as fire sprinklers.

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This Order expands the current MS4 permit boundary which previously consisted of the Laguna de Santa Rosa and Mark West Creek watersheds to include the entire area of Sonoma County that falls within the North Coast Region.

This is a large expansion of the permit boundaries from the existing permit. The requirements capturing runoff during emergency response and incorporating the listed BMP's would be unlikely in most of the areas covered by the new permit due to lack of fire fighting personnel and required equipment. Most of the areas covered in the unincorporated areas of the County are volunteers. The staffing is covered by mutual aid from other neighboring Fire Districts when available. Incidents for larger fires and fires where the Sonoma County DES Hazmat Team is dispatched, the resources of personnel and equipment allow for the practice of the storm water BMP's. We have in fact used these BMP's in numerous fires and hazmat events to protect the storm water system.

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In lieu of a strict prohibition, the Permittees may submit a plan for Executive Officer authorization that includes categories of non-storm water discharges to the MS4. 1The Permitees shall require that non-storm water flows infiltrate where possible and perform public outreach and education as one of the BMP's associated with each type of non-storm water discharge that they seek authorization from the Executive Officer to allow into the MS4. The Executive Officer will consider authorizing the discharge of non-

storm water flows that are listed below in Table 2 (required or Suggested BMP's for Non-Storm Water Discharges), and are not a source of pollutants.

Table 2

Flows from emergency fire fighting activity	Shall be exempt from the comply with all conditions in the authorization but BMP's shall be performed whenever possible. Pooled water after fire must should be controlled (non-emergency repair or training flows are not allowed unless it would cause degradation to the nearest receiving waters)	Utilize the means necessary to allow mats over storm drain inlets to increase the distance and settling out of pollutants before discharge to the storm drain whenever possible. Runoff controls shall be considered for fires at industrial or other facilities where hazardous materials may be onsite.
Fire Hydrant Testing	Shall comply with all the conditions in the authorization Fire hydrants that are not in close proximity to a storm drain inlet can be tested without dechlorination.	Must be dechlorinated using aeration and/or sodium thiosulfite and/or other appropriate means and/or be allowed to infiltrate to the ground. Utilize the means necessary to prevent discharge to mats over the storm drain inlets to increase the distance and removal of chlorine by volatilization before discharge to the storm drain.
Discharge from potable water sources, testing of fire sprinkler flows above ground is exempt	Shall comply with all of the conditions in the authorization. Provide discharges from water	Must be dechlorinated using aeration and/or sodium thiosulfite and/or other appropriate means

	lines and potable water sources shall be dechlorintaed, pH adjusted if necessary, reoxygenated, and volumetrically and velocity controlled to prevent resuspension of sediments. Unless the MS4 is authorized by the regional Water Board, planned discharges require separate NPDES permit coverage.	and/or be allowed to infiltrate to the ground. Sediment removal in discharge through settling or filtration. Control flow rate of discharge to minimize erosion potential. BMP's such as sand bags or gravel bags shall be utilized to prevent erosion or sediment transport. All sediment shall be collected and disposed of in a legal and appropriate manner.

In the above language the Permittees may submit a plan to the Executive Officer for authorization of non-storm water discharges. The plan is requires public outreach and education. For the three issues of concern listed in Table 2 above public outreach does apply. Fire service personnel are educated on capturing discharges from fire and hazardous materials events during required hazardous materials training and decontamination training.

FLOWS FROM EMERGENCY FIRE FIGHTING ACTIVITY

During an emergency that has discharge to the storm drain and has the potential to runoff to a creek or stream, the fire officers are trained to notify County DES Hazardous Materials (Battalion 29) through REDCOM or call the State Office of Emergency Services (OES) to report the condition. OES in turn notifies the appropriate RWQCB, Fish & Game, or any other agency that OES deems necessary.

Most fire apparatus do not carry storm drain mats to use for covering storm drain inlets. Typically engine companies will perform damming, dyking, and berming with shovels and surrounding soil to protect the storm drain inlet. If this is a hazardous materials event this is a very high priority. DES is typically notified and they will provide spill response materials. However during a residential structure fire or passenger vehicle fire this procedure is done if there are personnel available that are not involved in fire fighting activities. Many of the areas of the County are covered by volunteer fire companies and smaller Fire Districts. Having enough personnel to cover the positions required to fight the fire and provide safety can be challenging. Once the fire fighting activities have ceased then the BMP's can be initiated.

Non-Emergency repair or training flows are not allowed. The last place to train for the fire is during the fire or hazmat event. Flowing water is an integral part of the training of fire fighters. Not all training can be done on the grassy or least sensitive areas. The water within the fire engines is typically stored for days and is aerated as the apparatus

is driven. The pumps on the engines provide further aeration as the water is discharged to the hose, and then the nozzles aerate the water before it is finally discharge to the ground. Water from a fire hydrant also has to go through the apparatus pumps and nozzles before being released. The chlorine residual is volatilized each time the water is aerated. Foam is not typically used during training and should not be discharged to th storm drain.

Decontamination training is a requirement for hazardous materials certification. The teaching of decontaminating individuals during emergencies require a large area where a potentially large number of victims can strip, be washed and the water captured in pools. This is a very structured procedure and requires training. The water from the pools is typically discharged to the storm drain after the drills. During a real emergency the water would be properly handled depending on the pollutants of concern.

FIRE HYDRANT TESTING

Fire hydrants that are tested in areas that do not have storm drain inlets or receiving waters nearby should be exempt from dechlorination.

DISCHARGE FROM POTABLE WATER SOURCES

Testing of the above ground portion of fire sprinklers should be exempted as in earlier permits.

If the previously exempted water flows were to be diverted to the sanitary sewer (such as training flows) this would cause an additional hydraulic loading to the treatment plants costing money to treat previously exempt discharges. At certain times of the year hydraulic loading to the treatment plants is a problem because of storage. This would only increase the problem, especially for the smaller treatment plants.

Fire Inspector – Robert MacIntyre

Flows from emergency fire fighting activity

Flows from emergency fire fighting activity	1. Shall comply with all conditions in the authorization. 2. Pooled water after fire must be controlled (non-emergency repair or training flows are not allowed).	**1. Utilize mats over storm drain inlets to increase the distance and settling out of pollutants before discharge to storm drain.** **2. Runoff controls shall be considered for fires at industrial**

This BMP places unreasonable expectations on firefighters to control flows and runoff from emergency firefighting during an incident and is realistically impractical:

Fire departments do not have the staff necessary to immediately deploy the pollution prevention measures described in this BMP in a fire condition.

Engine companies do not have the space available on the apparatus to carry the equipment necessary to contain water on a given property or within creeks.

Many fire departments do not have the ability to dewater once the runoff has been contained. Keeping an emergency resource at a scene until such resources arrive will place an increased burden on the emergency response system and should be avoided.

Even if at the time of arrival of fire apparatus to an incident a special request is placed for the required materials, equipment and staff to meet the BMP requirements, such resources will likely not arrive until after the water has migrated.

Additionally, this BMP will influence the incident commanders decision as to whether let the building burn or managing the runoff. Is air quality more or less important than water quality?

This BMP will not be considered a fireground priority by first responders (firefighters). Preventing the loss of human life, and preventing the fire from involving other structures and/or the wildland will be considered a priority rendering this BMP impractical.

Changes noted below.

Flows from emergency fire fighting activity	1. ~~Shall~~ Attempt to comply with all conditions in the authorization. 2. Pooled water after a structure fire ~~must~~ should be controlled (non-emergency repair or training flows are not allowed).	1. Utilize ~~mats over storm drain inlets~~ available resources to increase the distance and settling out of pollutants before discharge to storm drain. 2. Runoff controls shall be considered for fires at industrial or other facilities where hazardous materials may be onsite

Fire hydrant testing	Shall comply with all conditions in the authorization.	**1. Must be dechlorinated using aeration and/or sodium thiosulfate and/or other appropriate means and/or be allowed to infiltrate to the ground.** **2. Utilize mats over storm drain inlets to increase the distance and removal of chlorine by volatilization before discharge to storm drain.**

Fire hydrant testing

This BMP places restrictions on fire hydrant flushing ("testing") without regard to flow rates and is impractical and unrealistic:

"Fast-flushing" is done to clear the system (often domestic w/o back flow prevention) of rust gravel and to ensure that the fire hydrant is in an operable condition. If not completed, gravel may enter the fire-pumper and cause catastrophic damage to the pumper resulting in the interruption of water during an interior attack – which would place firefighters at risk.

This BMP would deter agencies form conducting necessary "fast-flushing" of fire hydrants thus increasing health risks to water users as well as an increased risk to firefighters lives.

The suggestion is to modify the BMP and place a benchmark for the conditions based on estimated flows as noted below.

Fire hydrant ~~testing~~ flushing when more than 500 gallons/minute and/or more than 20,000 gallons of water are released.	~~Shall~~ Comply with all necessary conditions in the authorization.	1. ~~Must be dechlorinated~~ May be declorinated using aeration and/or sodium thiosulfate and/or other appropriate means and/or be allowed to infiltrate to the ground. or 2. ~~Utilize mats over~~ Block storm drain inlets to increase the distance and removal of chlorine by volatilization before discharge to storm drain.

Discharges from potable water sources

Discharges from potable water sources.4	1. Shall comply with all conditions in the authorization. 2. Provided discharges from water lines and potable water sources shall be dechlorinated, pH adjusted if necessary, reoxygenated, and volumetrically and velocity controlled to prevent resuspension of sediments. 3. Unless the MS4 is authorized by the Regional Water Board, planned	1. Must be dechlorinated using aeration and/or sodium thiosulfate and/or other appropriate means and/or be allowed to infiltrate into the ground. 2. Sediment removal in discharge through settling or filtration. 3. Control flow rate of discharge to minimize erosion potential.

	discharges require separate NPDES permit coverage.	4. BMPs such as sand bags or gravel bags shall be utilized to prevent erosion and sediment transport. 5. All sediments shall be collected and disposed of in a legal and appropriate manner.

This BMP places conditions on un-quantified (and unlimited) discharges form potable water sources and places huge restrictions on firefighter training as well as fire protection system testing & maintenance.

"In-service" fire companies typically conduct individualized firefighter training (minor drills) requiring the use of minor amounts of water.

The resources and time necessary to manage all water discharges regardless of the amount released consistent with this BMP would mean that firefighters would have to go out-of-service to manage and monitor the "discharge event" prior their becoming available to respond to emergencies.

This BMP will also deter firefighters from conducting minor drills with in-service companies, which would result in a predictable reduction in the quality of service.

This practice will place an increased burden on the emergency response system and must be avoided.

The practice should be modified to allow firefighters to flow limited amounts of water for minor drills and training, and as necessary to conduct routine fire protection system testing/maintenance.

Recommended changes as follows:

Discharges from potable water sources.(4) Exception: 1.Low volume, incidental and infrequent releases necessary for fire suppression systems testing	1. ~~Shall~~ comply with all required conditions in the authorization. 2. ~~Provided~~ discharges from water lines and potable water sources ~~shall~~ may be required to be dechlorinated, pH adjusted if necessary, reoxygenated, and volumetrically and velocity controlled to prevent	1. ~~Must~~ Should be dechlorinated using aeration and/or sodium thiosulfate and/or other appropriate means and/or be allowed to infiltrate into the ground. 2. Sediment removal in discharge through settling or filtration. 3. Control flow rate of discharge to minimize

and maintenance. 2. Firefighter training/drills where less than 5000 gallons are flowed.	resuspension of sediments. 3. Unless the MS4 is authorized by the Regional Water Board, planned discharges require separate NPDES permit coverage.	erosion potential. 4. BMPs such as sand bags or gravel bags shall be utilized to prevent erosion and sediment transport. 5. All sediments shall be collected and disposed of in a legal and appropriate manner.

(4) The term applies to low volume, incidental and infrequent releases that are innocuous from a water quality perspective. It does not cover scheduled discharges by potable water purveyors for the (i) dewatering or hydro-testing or flushing of water supply and distribution mains, or (ii) dewatering or draining of reservoirs or water storage facilities. Releases may occur for discharges from potable water sources only with the implementation of appropriate BMPs, dechlorination prior to discharge. Discharges from utility vaults shall be conducted under coverage of a separate NPDES permit specific to that activity.