

Good Practices / Prácticas Buenas



Silt Fence
Cerca de Légamo



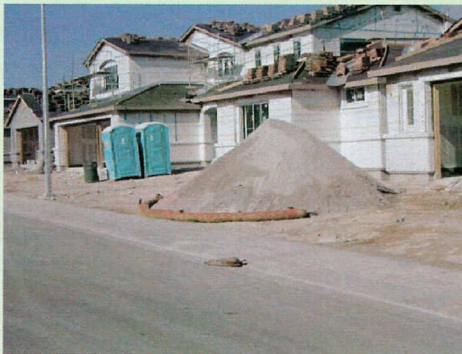
Chemical Containment
Contención Química



Retention Pond
Estanque de Retención



Washout Pit
Hoyo de Lavadó

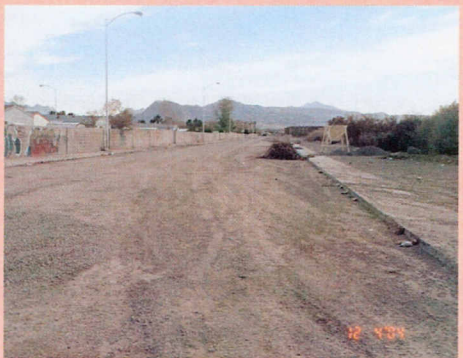


Fiber Roll Containment
Contención con Rodillo de Fibra



Fiber Roll and Straw Bales
Rodillo de Fibra y Pacas de Paja

Bad Practices / Prácticas Malas



Sediment in Street
Sedimento en la Calle



No BMPs
No MPGs



Poorly Maintained BMPs
MPGs Pobremente Mantenidas



Poorly Maintained Construction Site
Sitio de la Obra Mal Mantenida



Construction Debris
Escombros de la Construcción



Do Not Block Inlets in Public Streets
Except When Cleaning Paved Streets
No Bloquee las Entradas en Calles Publicas
Menos Cuando Limpiando Calles Pavimentecas

Construction Site Stormwater Inspection Information

Stormwater Pollution and Construction Sites – What You Should Know

The Problem

Las Vegas Valley storm drains are not connected to a wastewater treatment plant – they flow directly to our local streams, washes and lakes. Land development and construction activities can add pollutants to stormwater runoff. Most construction impacts on stormwater quality are due to erosion, sedimentation and chemicals used on site.

Laws and Regulations

Construction site owners and operators must:

- Obtain a construction site stormwater permit from Nevada Division of Environmental Protection (www.ndep.nv.gov/bwpc/storm01)
- Prepare a Storm Water Pollution Prevention Plan
- Implement best management practices (BMPs)
- Perform weekly site inspections and BMP maintenance

Runoff must not contain sediment, concrete, mortar, paint, solvents, lubricants, vehicle fluids, fuel, pesticides, construction debris, or other pollutants.

Best Management Practices

Protect all storm drain inlets and streams on construction sites.

- Stabilize construction site entrances/exits to minimize the track-out of dirt and mud onto streets.
- Store materials away from storm drain inlets. Protect materials from wind and rain by storing them under a roof or plastic.
- Keep vehicles and equipment in good working condition. Inspect frequently for leaks.
- Wash out concrete mixers only in washout areas.
- Practice proper waste disposal.
- Cover open dumpsters with plastic. Have dumpsters emptied regularly.
- Clean up spills immediately.
- Remove existing vegetation only as needed.

Prepared by Las Vegas Valley Stormwater Quality Management Committee

www.lvstormwater.com

Contaminación de Agua de Tormentas y de Lugares de Obras – Lo Qué Usted Debe Saber

El Problema

Los desagües de tormenta del valle de Las Vegas no están conectados con una planta de tratamiento de aguas residuales – estos fluyen directamente a nuestras corrientes (arroyos), coladas y lagos locales. Las actividades del desarrollo de tierra y de la construcción pueden agregar los agentes contaminantes al descargue del desagüe de tormentas. La mayoría del impacto de la construcción en calidad de el agua de tormentas son debido a la erosión y a la sedimentación.

Leyes y Regulaciones

Dueños y operadores del lugar de la obra deben:

- Obtener un permiso de aguas de tormentas para el lugar de la obra de la división de Nevada de la agencia de protección del medio ambiente.
- Preparar un plan de prevención para la contaminación del agua de tormentas.
- Implementar las mejores prácticas de gerencia (MPGs).
- Realice las inspecciones del sitio semanales y el mantenimiento de MPG.

La salida de el agua no debe contener sedimento, concreto, mortero, pintura, solventes, lubricantes, líquidos de vehículo, combustible, pesticidas, basura de la construcción, u otros agentes contaminantes.

Las Mejores Prácticas De Gerencia

Proteja todas las entradas y corrientes del desagüe de tormenta en el lugar de la obra.

- Estabilice entradas/salidas del lugar de la obra para reducir al mínimo la pista-hacia fuera de la suciedad y de lodo sobre las calles.
- Almacene los materiales lejos de entradas del desagüe de tormenta. Proteja los materiales contra el viento y la lluvia almacenándolos debajo de un tejado o de un plástico.
- Mantenga los vehículos y el equipo en buenas condiciones de trabajo. Examine/inspeccione con frecuencia para saber si hay fugas/escapes.
- Lave los mezcladores de concreto solamente en áreas designadas para este propósito.
- Practique la eliminación apropiada.
- Cubra los basureros abiertos con plástico. Mantenga los basureros vaciados regularmente.
- Limpie derrames inmediatamente.
- Quite la vegetación existente solamente según lo necesario.

Preparado por la comisión administradora de la calidad de agua de tormentas del valle de Las Vegas

www.lvstormwater.com

Resources

To obtain Notice of Intent/Termination Forms and General SWPPP and NPDES information, contact:

Stormwater Coordinator - Bureau of Water Pollution Control - Nevada Division of Environmental Protection
775-687-9429
www.ndep.nv.gov

Las Vegas Valley Permittees:

Clark County Regional Flood Control District
702-455-3139

Clark County Department of Air Quality and Environmental Management
702-455-5942

City of Las Vegas
702-229-6541

City of North Las Vegas
702-633-1200

City of Henderson
702-267-3000

To report illegal dumping, call:

Clark County Health District
702-383-1027

To order additional brochures or to obtain information on other pollution prevention activities, please call 702-455-3139 or visit the Las Vegas Valley Stormwater Quality Management Committee stormwater pollution prevention website at:

www.lvstormwater.com



The Las Vegas Valley Stormwater Quality Management Committee gratefully acknowledges the following agencies for providing information for this brochure:

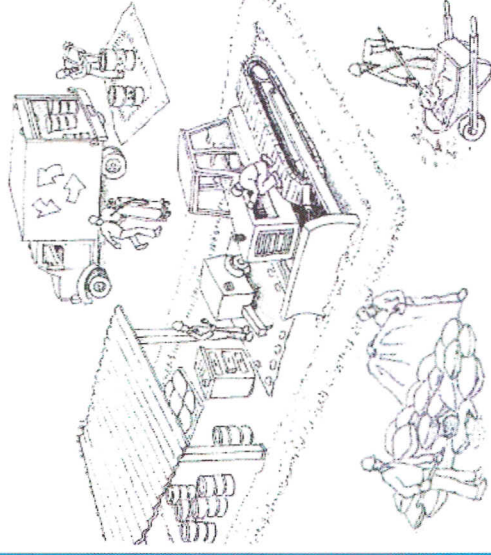
- Santa Clara Valley Nonpoint Pollution Control Program
- Alameda Countywide CleanWater Program
- City of Los Angeles Stormwater Management Division
- County of Riverside StormWater/CleanWater Protection Program



Stormwater Pollution

What you should know for...

GENERAL CONSTRUCTION & SITE SUPERVISION



Best Management Practices (BMPs) for:

- Developers
- General Contractors
- Home Builders
- Construction Inspectors
- Anyone in the construction business

General Construction Activities Stormwater Permit

The Nevada Division of Environmental Protection (NDEP) adopted the General Permit for Stormwater Discharges Associated with Construction Activity (NVR100000), superseding the now expired General Permit GNV0022241. This permit is administered and enforced by the NDEP, with cooperation from local municipalities that have their own ordinances controlling discharges to the drainage system. The General Permit for Construction Activity establishes a number of stormwater management requirements for construction site owners and operators.

Frequently Asked Questions:

Does my construction site require coverage under the General Permit for Construction Activity?

Yes, if construction activity results in the disturbance of one or more acres of total land area or is part of a common plan of development that results in the disturbance of one or more acres.

How do I obtain coverage under the General Permit for Construction Activity?

Obtain the permit package and submit the completed Notice of Intent (NOI) form to the NDEP prior to grading or disturbing soil at the construction site. For ongoing construction activity involving a change of

ownership, the new owner must submit a new NOI within 30 days of the date of change of ownership. The completed NOI along with the required fee should be mailed to the NDEP.

What must I do to comply with the requirements of the General Permit for Construction Activity?

- Implement BMPs for non-stormwater discharges year-round.
- Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) prior to commencing construction activities.

- Keep a copy of the SWPPP at the construction site for the entire duration of the project.

- Calculate the anticipated stormwater run-off.

- Implement an effective combination of erosion and sediment control on all soil disturbed areas.

- Conduct site inspections prior to anticipated storm events, every 24 hours during extended storm events, and after actual storm events.

- Perform repair and maintenance of BMPs as soon as possible after storm events depending upon worker safety.

- Update the SWPPP, as needed, to manage pollutants or reflect changes in site conditions.

- Include description of post-construction BMPs at the construction site, including parties responsible for long-term maintenance.

NOTE: Please refer to the General Permit for Stormwater Discharges Associated with Construction Activity for detailed information. You may contact the NDEP or visit the website at www.ndep.nv.gov/bwpc to obtain more information.

How long is this General Permit for Construction Activity in effect?

The Permit coverage stays in effect until you submit a Notice of Termination (NOT) to the NDEP. For the purpose of submitting a NOT, all soil disturbing activities have to be completed and one of the three following criteria has to be met.

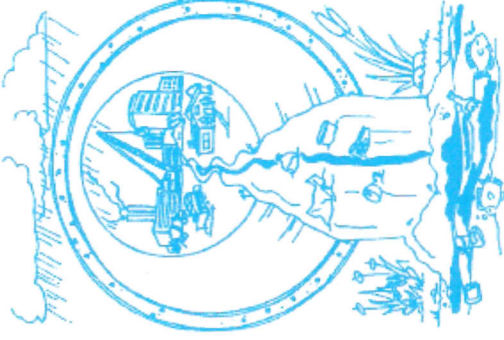
1. Change of ownership;
2. A uniform vegetative cover with 70 percent coverage has been established; or,
3. Equivalent stabilization measures such as the use of reinforced channel liners, soil cement, fiber matrices, geotextiles, etc., have been employed.

Stormwater Pollution... What You Should Know

Clark County has two underground pipe systems - sewers and storm drains. The storm drain system was designed to reduce flooding by carrying excess rainwater away from streets and developed areas. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our local waterways.

Unlike sanitary sewers, storm drains are not connected to a wastewater treatment plant - they flow directly to our local streams, washes and lakes.

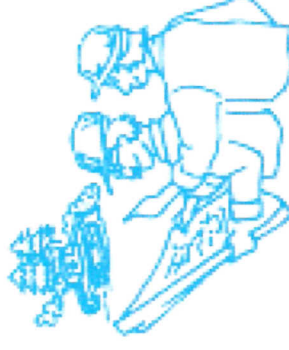
Stormwater runoff is part of the natural hydrological process. However, land development and construction activities can significantly alter natural drainage processes and introduce pollutants into stormwater runoff. Polluted stormwater runoff from construction sites has been identified as a major source of water pollution in Nevada and all developing areas. It jeopardizes the quality of our local waterways and can pose a serious threat to the health of our aquatic ecosystems.



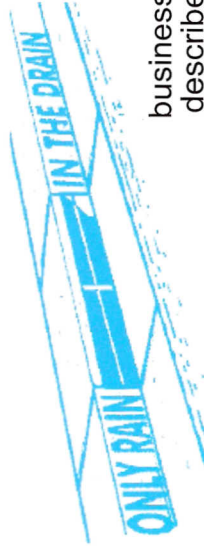
Stormwater Pollution from Construction Activities

The two most common sources of stormwater pollution problems associated with construction activities are **erosion** and **sedimentation**. Failure to maintain adequate erosion and sediment controls at construction sites often results in sediment discharges into the storm drain system, creating multiple problems once it enters local waterways.

Construction vehicles and heavy equipment can also track significant amounts of mud and sediment onto adjacent streets. Additionally, wind may transport construction materials and wastes into streets, storm drains, or directly into our local waterways.



The Las Vegas Valley Municipal Separate Storm Sewer Protection Program



Because preventing pollution is much easier and less costly than cleaning up "after the fact," the

Cities of Las Vegas, North Las Vegas and Henderson and Clark County inform residents and businesses on pollution prevention activities. This pamphlet describes various Best Management Practices (BMPs) that construction site operators can use to prevent stormwater pollution.

In accordance with applicable federal and state law, the Las Vegas Valley municipalities have adopted ordinances for stormwater management and discharge control that **prohibit** the discharge of pollutants into the storm drain system or local surface water. This includes discharges from construction sites containing sediment, concrete, mortar, paint, solvents, lubricants, vehicle fluids, fuel, pesticides, and construction debris.

PLEASE NOTE: The Federal, State and local regulations strictly prohibit the discharge of sediment and pollutants into the streets, the storm drain system or waterways. As an owner, operator or supervisor of a construction site, you may be held financially responsible for any environmental damage caused by your subcontractors or employees.

What Should You Do? Advance Planning to Prevent Pollution

- ❑ Remove existing vegetation only as needed.
- ❑ Schedule excavation, grading, and paving operations for dry weather periods, if possible.
- ❑ Designate a specific area of the construction site, well away from storm drain inlets or watercourses, for material storage and equipment maintenance.
- ❑ Develop and implement an effective combination of erosion and sediment controls for the construction site.
- ❑ Practice source reduction by ordering only the amount of materials that are needed to finish the project.
- ❑ Educate your employees and subcontractors about stormwater management requirements and their pollution prevention responsibilities.
- ❑ Control the amount of surface runoff at the construction site by impeding internally generated flows and using berms or drainage ditches to direct incoming offsite flows to go around the site. **NOTE:** *Consult local drainage policies for more information.*

Best Management Practices

The following Best Management Practices (BMPs) can significantly reduce pollutant discharges from your construction site. Compliance with stormwater regulations can be as simple as minimizing stormwater contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site.

- ❑ Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- ❑ Limit access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- ❑ Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- ❑ Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- ❑ Phase grading operations to limit disturbed areas and duration of exposure.
- ❑ Perform major maintenance and repairs of vehicles and equipment offsite.
- ❑ Wash out concrete mixers only in designated washout areas at the construction site.
- ❑ Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- ❑ Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- ❑ Clean up spills immediately using dry clean up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas.
- ❑ Prevent erosion by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, permanent or temporary seeding.
- ❑ Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- ❑ Practice proper waste disposal. Many construction materials and wastes, including solvents, water-based paint, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste.
- ❑ Cover open dumpsters with secured tarps or plastic sheeting. Never clean out a dumpster by washing it down on the construction site.
- ❑ Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.