Final Video
Keep it Clean: Preventing Pollution from Construction Sites

30 Title Sequence tba
building houses from ground up,
include many shots of workers
working hard dirty jobs
could use sidewalk concrete workers
on 4:15:00ff

It takes hard & dirty
continue video from open; could use
Craig recent house video; Palo Alto
Street 8:18ff,
sawcutter neighborhood tape 1
video of Oak Hills Dirt 1 5:15ff that
wasn't used or Dirt1 6:22:21 [end of
great pan was used in Dirt1]
tidy houses...
montage
07:00ff various model homes, flags
flying
07:01:57:- 02:06
Oak Hills model homes family coming to
tour

in new devels.....laws require...
contrast with gardener washing dirt into
street & down into drain&. 7:00:00ff
or Oak Hills completed houses, trash
piles waiting for pickup 06:25:45

During the rainy season
rain scenes from Dirt1RWOCB
footage ? alternative: lots of quick
shots of storm drains with
protection from Dirt 2 & Dirt 1
footage; signs by drains "flows to
Bay" "flows to Delta; creek and bay
scenes"

Final Edit Script 7/31/98
Keep it Clean: Preventing Pollution from Construction Sites

Title sequence tba 30

TRAK
It takes hard and often dirty work to build
the tidy houses and clean streets that
welcome future home owners. 06

In new developments and in established
communities....laws require owners and
builders to protect all natural waterways--
and the storm drains that flow into them.
Pollution prevention regulations apply
from the very beginning of work on a site. 15

During the rainy season, builders must take
precautions to keep soil and pollutants from
washing into streams and into drains,
damaging the environment. 09

open plus intro trak to here
TRT:60
When the rains stop... or when grading is completed... and house construction begins......builders may assume that they no longer need to prevent pollution. They may allow storm drain protections to deteriorate.

Use next two paras for preview upcoming gooey, watery construction jobs... and some gd management practices—the sexier ones like vacuuming and sawing
But... stages... water eg concrete sequence eg liquid concrete pouring from pipe @ 9:05ff/9:08ff so builders need to well protected drain--another option. 4:19ff

Coming up...

But later stages of construction use large quantities of water... and some building materials can damage the environment.... so builders must maintain storm drain and creek protections until construction and landscaping are complete.... and new owners take responsibility for pollution prevention.

Coming up... we'll take a look at construction jobs where pollution prevention can make a big difference... and we'll demonstrate some good management practices.

Seg 69+30 for open
TRT: :99=1:39
Concrete pouring is one construction job where old quick and dirty practices persist. Concrete washout water running into storm drains is damaging in several ways. Caustic, highly alkaline water injures and kills plants and animals that live in the waterways. Concrete clogs drains and may cause winter flooding.

Well-run construction sites provide concrete washouts, so rinse water and concrete waste can’t reach storm drains or creeks. When the concrete dries, it’s trucked away.

Shovel up the drips for later dry disposal...then, when you hose the street down, very little will get to the storm drain.... Here workers are managing drips well...

But here... too much concrete was left on street.

Workers should clean tools away from the street, because the caustic rinse water runs right through sand bags to creeks and bays.

Concrete Seg time 57

TRT 57+ .99= 156/60=2:36
Developers and general contractors have the final responsibility for preventing pollution. Project superintendents need to work closely with subcontractors to make sure the job is done right.

Andy Thomas
Project Superintendent
on cam
06:06:27:19
Pretty much each subcontractor, uh, if their process of construction does involve any kind of a pollution problem, we go through and educate them—if they are not already educated. And then we have our project standard practices that we show them.
06:06:42
continue v/o with b-roll from here
[see Andy walking with sub at 19:11:08
SOT up at 19:11:09
[Andy: ]We'll make it a joint effort....
[Sub-contractor Mark Mathis] I have guys over here cleaning already.
09:11:14
v/o
06:06:42
and then as they start their construction process we'll talk to them and say look this doesn't work or this does work.
06:06:49
[video to cover above bite” see Andy & sub walking down street w. bay19:10:31ff; then Andy gesturing]
19:10:37
19:10:36 video continues
sot up at
[Andy] you got to get some sandbags down
sot down
19:10:41

or 09:10:45—better as video only
SOT up
[Andy:] he kind of looked at me then he grabbed the
the hose off his truck and started hosing it down.
09:10:49
:04

Andy on or off cam
06:06:50 [and]
Then we monitor their construction while
they're here and if there is a problem we stop
them again and show them what's wrong
06:06:58
:08
[and, you know],[ if they don't ]

Andy talking to foreman & sub at
[19:12:14 video
sot up at 09:12:19-09:12:25
...everything cleaned up so when you send
your clean up crew in if it's not done by him
I want you to do it and you can deal with it
09:12:25
:11

Andy on cam or v/o 06:07:00
and if the 're doing a great job, we tell 'em.
06:07:02:26
:02
[positions in2- shot reversed below; pls make it work]
19:08:50
see back of Andy's head, smile of sub at 19:08:56
:06

interlude & v/o intro
Andy's bites
video & SOT interludes
mix with no v/o
seg time: 108 max
TRT 156+108=266=4:26
Keep it Clean
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[stucco lead in :03]

Oak Hills stucco being rinsed with water on to ground dramatically lots great mess 05:24:21ff
or see 05:20:23 applying & falls to ground

Crews use...
begin sequence showing stucco mixing, applying & pp methods along the way breaking bags of concrete into mixer 05:25:52ff, 05:18:34
adding water 05:18:41 also 06:01:29ff
adding sand
Plastic sheets....
curb covered in plastic 05:27:37 -43 or 5:26:29 & various
Sandbags
sandbags at 5:27:57, 5:28:18
05:28:37 stop sign with sandbags at storm drain inlet so that it can't...water
cu of fish sign "no dumping drains to delta" 05:29:54:6:00:00ff

Gabriel Tapia on cam lower 1/3 super
Gabriel Tapia
stucco crew foreman

Frequent clean up...
dry stucco on street 05:17:03ff
possibly see bags of stucco ie cement spilled 05:16:59

Even regular....Break up....
laborer breaking up stucco 05:18:31ff & 05:17:43ff
Then trucked
concrete being put in dumpster 05:13:18ff

[BEGIN stucco seg with music or nat. sound 1 :03]

Crews applying stucco use several methods to control pollution. :04
Plastic sheets protect sidewalk and curb... :03
Sand bags in the gutter and around the grate stop the material that has reached the street so that it can't get into local waters. :08

Gabriel Tapia
Stucco crew foreman

06:05:49
They take more work but we have to do, you know. End of the day we have to do anyway. We have to keep it clean. It's more hard, but we have to do.
06:05:59 [smile] :10
Frequent clean up is essential. It keeps spills from drying on the sidewalks and streets, where they're hard to clean off. :07

Even regular cleanup is tough. Workers break up the dried stucco so it can be trucked away. :06

seg time :41
TRT 266+:41=307=5:07
Painters can protect the environment... by proper rinsing of buckets and tools. :05

Small amounts of latex paint can be safely flushed or rinsed into most sanitary sewers, but not into storm drains. Here, the tub, or bath, is connected to the sanitary sewer cleanout. :12

Tony Bettencourt
Paint Crew Foreman

Tony Bettencourt off cam v/o
2:20:39cu [head turned to wash tub, then back to cam]
before we used to wash inside :02
Tony Bettencourt on cam at 02:20:41
[like] in the sinks which goes to the same drain but then, sometimes the walls get dirty and we have to repaint them. 02:20:47 So, yeah, we've been doing this for quite a while. Every job site we have we have one or two baths there in each drain.
02:20:56 :15
Seg time :37
TRT :37 +307=344/60=5:44

Tony Bettencourt on cam
2:20:41-56 :15
Keep it Clean
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Landscaping video transition
2:22:41 ff es landscaping & cus dirt in street
2:02:50ff various throughout tape 2

Putting in landscaping
02:26:38ff
building wall with mortar particularly gd
2:26:28
see also 2:02:59ff various

Can pollute & plug
debris beside & in drain
2:02:59ff;2:22:40ff:02:05:34ff
drain with leaves and dirt 02:06:09
dirt, grass & water in gutter water to storm drain gd 02:07:52

Here tarps protect
02:03:33ff
bark from blowing
02:04:47

frequent cleaning...
worker shovels soil off sidewalk
2:28:01ff
see also Oak Hills footage of worker cleaning sidewalk & gutter
6:13:40ff
sandbags alone beside drain--find shot that looks like how about 4:19:00 ff
sandbagged drains if dont show liners

filter cloth...
drain with filter cloth, no sandbags, water running, see leaves on grate; dirt in bag
2:10:11ff
a combination...
begain filter clean out sequence
shots at 3:00:17-3:01:39
3:02:01ff
include shoveling dirt from street, a bit of sweeping, but save some sweeping for below

hosing down....
include cu of sand washing around sandbags and into grating 03:07:21ff
dry sweeping
03:05:47ff--

Begin landscaping seg w. music or natsound :03

Putting in landscaping can pollute and plug up storm drains, if workers don't take preventive measures. :06

Here, tarps protect the curb and street while the fence is stained. Tarps can also help keep piles of bark and soil from blowing into the street. :08

Frequent cleaning keeps dirt from reaching the storm drains. :03

Sandbags alone let too much soil and debris wash into the drain. :04

A filter-cloth liner traps sediment and debris...but fills up quickly. :04

Combining sandbags and a liner gives better protection to drains...but only if builders inspect and clean them out frequently. :07

Hosing down streets just washes more sediment into the drain... :04

Sweeping works much better to keep dirt out of drains. :03
seg time :42
TRT 344+:42=386/60=6:26
Keep it Clean
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video transition to haz mat,
waste storage seg-possibly follow
fork lift bringing drum into haz waste
enclosure
Palo Alto Corp Yard starts 8:00:00

forklift delivers drum
08:04:15
show haz waste sign, label, shed, berm,
chainlink fence
for bermed enclosure, catchbasin,
absorbant see 8:02:30ff

Even latex paints
worker opens tarp, lifts paints 08:09:17
catch basin 08:10:40

absorbants kept handy
worker takes absorbant in hand
08:11:13
clear shot with old paint spill

construction sites...
use es Palo Alto site that dont need later

On a small job site,
Palo Alto house good example
secondary containment of gasoline for
equipment
08:18:53

Begin haz mat storage seg
with nat sound or music :03

It's even more important to control
materials if they are toxic.
This corporation yard, stores hazardous
materials and wastes securely
until they are used or sent for disposal.

Materials are double contained in diked
enclosures or sheds... :10
Extra catch basins will trap any spills
and special "pillows" will absorb them. :04

Even latex paints are stored under cover,
with catch basins below. :05

Absorbants are kept handy to catch spills..
like the old spill you can see under
these cans which didn't get very far.. :07

Construction sites need similar precautions
when workers handle hazardous materials
and wastes.
On a small job site, this might only
mean putting fuel cans in a box ... inside a
garage or shed. :12

Seg :46
TRT 386+ 46=432=7:12
On large construction sites like this one, proper management and storage of hazardous materials and wastes are essential to protect the environment.

Lyle Miller
Job Superintendent
off cam v/o
3:12:53 [and]
It has a lot of sensitive environmental concerns, as we have a creek meandering right through the middle of it.
[delete nb's uhuh]
And to keep the dust and the dirt and the oil [delete extra and & flub; another possible start for Lyle on cam]
and anything potential to contaminate the creek has been a real chore but [it's ] 03:13:06

Lyle Miller on cam
3:13:06-3:13:11
lower 1/3 super here or next bite if short

Lyle Miller
Job Superintendent
this deep pit
4:01:45ff
grader coming in for fueling
4:08:24 ff
big fuel tanks with worker measuing
contents 3:27:49 ff
containment area 3:28:29ff or
4:01:30ff
lined with plastic
4:00:00ff
so leaks...would run
04:10:42 pan r grader to pit?
tanks keep... 4:04:23
square container 4:05
& two small cylinder tanks at rear of containment area 4:04
shots of pit, berm around it and cu heavy plastic
es enclosure and/or
big scraper fueling at big fuel tanks
diesel fuel tanks with worker measuing
contents or alone containment area
Cleanup supplies
4:02:27

This deep pit gives good double containment. It's surrounded by a berm and lined with thick plastic, so leaks of diesel fuel would run into the pit where they can be pumped out. Tanks keep new oil, as well as used oil and oil filters, secure. Cleanup supplies are kept near storage and work areas.
Storing these hazardous materials on the ground is risky. Oil filters, antifreeze and old batteries can leak. Open buckets of dirty oil can spill.

When you do have oil spills, mop them up with absorbant diapers, or rags. The diapers and oil-soaked dirt should be sent offsite for recycling and disposal.

It's better to prevent drips by using a drip pan than to have stains to clean up.... whether you're working on equipment in a shop area or parking and using equipment on a street.

People make the difference in pollution prevention. The keys are training and supervision.

Lyle Miller on cam
3:16:48 cu
It isn't that difficult, if you set up a regimen and train your people from the beginning.

03:16:54:18 The big thing is to train them from the beginning.

03:16:57
03:19:48 xcu
If you see some guy go out there and throw 5 gallons of oil on the ground and nobody said anything about it, well, the next guy thinks it's all right too. 03:19:56 But me, as a supervisor, sees something like that, well, go get him and rub his nose in it and have him get a diaper and clean it up and put it in the can. 03:20:06 The next time he's not so apt to do that. 03:20:09

Seg 111
TRT 111+432=543/60=9:03
Saw cutting....
do sequence of saw cutting with track
v/o and Robert Mena v/o
es job and job site
drains are well protected
1:14:34ff
see sandbags and filter cloth protecting
storm drain, lots of water running into
drain

Robert Mena v/o only
if necessary?
lower 1/3 super
voice of
Robert Mena, EBMUD
Before we started using the vacs
see bags & filter cloth in place, lots water
running along curb, over bags & cloth
then vacuuming up the water along curb
as used to do before new methods
1:14:34ff

The book calls for
start sawing sequence including cu's &
shots Mena at work
do set up only if time
saw running 1:06:37ff
water by saw
vac picking up water & grit by saw
dry curb 1:14:31ff

Begin Road Segment transition :03
Saw cutting on streets can put sediments or
toxic chemicals into storm drains and
waterways, so it's important to protect drains
and minimize water use when you're
cutting concrete. :11

Robert Mena v/o
1:29:35 Before we started using the vacs there
was a lot of sandbag placement, filtration
cover placement and what we've done we've
modified sawing.
[uh]
1:29:48
The book calls for the saws to be run with a
certain amount of water
[uh per]
per minute. 1:29:54 What we've done, we've
slowed down the sawing speed and reduced
the amount of water, thereby reducing the
amount of runoff 1:30:02
[fix, delete flub?]
so now we actually have less runoff, more
containment around the actual cut and
[uh]
the vacuum actually picks up more of the
material 1:30:11

seg 48
TRT 543+48=591/60=9:41
transition :03 to "dewatering"
start sequence of Palo Alto ground
water at house
Like....ground water..
Palo Alto construction site showing hole
with dirty water, black tube housing
pump, white
pipes, filter cloth at end of pipe at curb,
clear water running down street
8:13:31ff
Where chemical pollutants
dewatering equipment on site between
highway and refinery: 07:17:57
water pumped from ground by hiway,
filtered & put in creek

Pumping and filtering
mix of dewatering & filtering equipment
at Rain for Rent es at 7:12:16

State... George Leyva
with Rick Romiti, on catwalk above 3
part tank= 2 stage weir 07:07:48ff
also available: George"r eviewing" dirty
gutter at Gale ranch 02:09:27ff and
preceding shots
or just shots of various pp techniques
already seen as final recap

Using its research
continue recap various methods

George Leyva
Inspector, Regional Board
on cam 19:27:10-14

super next appearance

George Leyva v/o
bosses and workers at various sites
shots of superintendents and workers at
various sites communicating
-save Alex chatting for below
local inspectors para below

[Begin"Dewatering" & RWQCB/local inspectors
Segment

Ground water on a construction site must be
filtered before it goes into storm drains.

Where chemical pollutants may be present--
from nearby industry or highways--charcoal
filters, as in these blue canisters--may be
necessary to clean the water before it goes
into a creek or drain.

Pumping and filtering equipment is
available to handle every size and type of
dewatering job.

State inspector George Leyva reviews a good
method for removing sediment from water.
The Regional Water Quality Control Board
in the San Francisco Bay Region has
researched many pollution prevention
techniques.

Using its research--and the experience gained
by active enforcement of regulations--the
water board develops seminars and field
manuals to help builders comply with state
regulations.

George Leyva
Inspector, Regional Board
cu looks to camera
19:27:10
You know pollution prevention is really a
simple concept.
19:27:14

George Leyva v/o
10:01:04
Every one at a construction site has a
responsibility to manage these materials in
such a manner that they're not causing
pollution to the waters of the state.
10:01:14
The Regional Board
shots of bosses & workers conferring if any left
guy with clipboard making notes
9:19:24
storm water pollution prevention plan
10:01:21

George Leyva on cam
lower 1/3 super
George Leyva
Inspector, Regional Board

The Regional Board also works with local inspectors so that cities and counties will assist the Board in enforcing the state regulations and the general permit.

George Leyva on cam
19:25:57 xcu facing cam
We have to rely on the local agencies to have their inspectors inspecting the sites and inspecting them in a proper manner to where the construction sites are in fact following the requirements of the permit.
19:26:12

George Leyva on cam
19:23:38: cu looking to right
We'd very much prefer talking with the local inspectors, training the inspectors, having seminars, discussing with them, showing them best management practices that should be going on at construction sites 09:23:52 rather than us writing notice to comply every time we turn around.
19:23:57
[looks more to cam, smile]

Some cities are already enforcing local pollution prevention regulations.

Alex Michalidis on cam
08:23:15 xcu
We take a very proactive approach in informing contractors and construction sites what the requirements are so over the years we have seen improvements.
08:23:24 [tight out]
Local inspectors can visit each construction site frequently and develop continuing relationships with local builders.

Alex Michalidis
xcu
08:25:26
There's got to be a level of respect for each other, you know.
08:25:29 Their job is to do the work that is at hand 08:25:32 They're not necessarily in the business of managing water or making sure that, you know, paint cans are stored properly or this or that. 08:25:41 They're building something, they're tearing something down, whereas my job is to make sure that the water is being handled properly. So it's a give and take and I think the more respect you show to someone the higher the likelihood that they will actually do what you want them to do.
08:25:56:28

seg 135
TRT 591+135= 726/60=12:06+1:30=13:36
credits 1:30
= Total Run Time 13:36 minutes minimum
Maximum time when completed 18-20 min.
Revised Credits--two possible additions tba
Tue, Aug 4, 1998
Firms of plasterer sub at Oak Hills, painter sub at Gale Ranch

Credits
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Senior Project Manager
Marcia Brockbank
Technical Advisors
Regional Water Quality Control Board,
San Francisco Bay Region
Hossain Kazemi
George Leyva
Billi Romain
Bay Area Stormwater Management Agencies Association
Geoff Brosseau
Janet Cox

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