

2012 CONTRACTOR MEETING



Landscape Architecture Program

Caltrans Contractor Meeting

Welcome

Welcome to the 2012 Caltrans meeting with Contractors.

The slide features a dark red header bar on the left and a lighter red bar on the right containing the text 'AGENDA REVIEW' in white, uppercase letters. Below this, a subtitle 'Agenda Review and Ground Rules' is centered in a grey font. The slide is enclosed in a thin black border.

Jack Reviews the Agenda.

Ground Rules

- Start and finish on time
- Full participation encouraged
- Different opinions welcome
- One person speaks at a time
- Limit jargon

Jack Reviews the Ground Rules.

Ground Rules

- Limit side conversations
- Keep discussion on topic
- Silence is agreement
- Set phones to “vibrate”
- Have fun

Jack Reviews the Ground Rules.

The slide features a dark red header bar with the text "TRENDS & FORECAST" in white, bold, uppercase letters. Below the header is a subtitle "Keith's Crystal Ball Forecast" in a smaller, grey font. The main body of the slide is white and currently empty.

Keith's Forecast of Future Work

State Highway Operation and Protection Program (SHOPP) Allocation History						
		Voted Cost (\$1,000)				
SHOPP Program	Accounting Code	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011
Roadside Safety Improvements	201.235	1,040		2,000	1,947	3,599
Roadside Protection and Restoration	201.240		411	3,889	2,317	285
Safety Roadside Rest Area Rehabilitation	201.250	14,379	33,585	47,457	15,120	9,421
Highway Planting Rehabilitation	201.210	27,990	13,535	9,132	2,718	2,600
New Safety Roadside Rest Areas	201.260					
Stormwater - All	201.335	42,379	86,904	42,382	30,408	800
Total		85,788	134,435	104,860	52,510	16,705

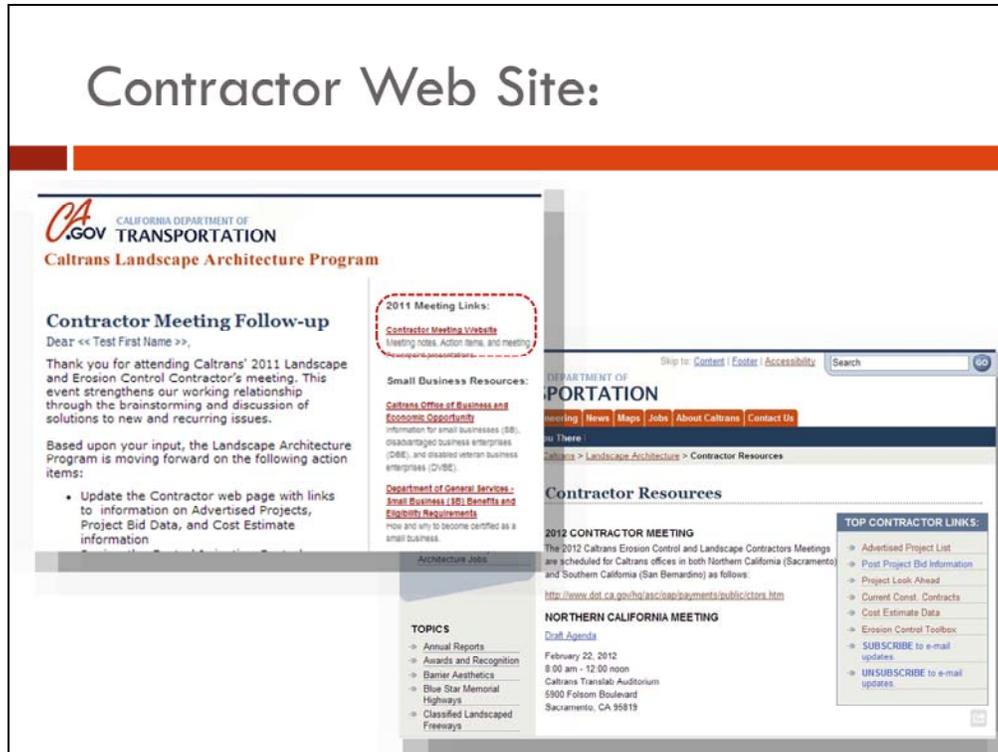
Future SHOPP 2011/12 - 2016/17 and Beyond							
		Programmed Cost (\$1,000)					
SHOPP Program	Accounting Code	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017 +
Roadside Safety Improvements	201.235	3,002		1,200	27,515	14,803	106,000
Roadside Protection and Restoration	201.240						
Safety Roadside Rest Area Rehabilitation	201.260		11,335				
Highway Planting Rehabilitation	201.210			6,515			
New Safety Roadside Rest Areas	201.260			8,474			
Stormwater - Source Control	201.335	1,507	35,100	8,134	57,537	49,100	
Stormwater - Other		76,261	98,912	77,447	4,603	14,305	130,000
Total		80,770	145,347	101,770	89,655	78,208	236,000

Keith's Forecast of Future Work

The slide features a dark red header bar on the left and a lighter red bar on the right containing the title 'ACTION ITEM UPDATE' in white, uppercase letters. Below the header is a subtitle 'Review of Last Year's Action Items' centered on a light gray background with horizontal lines. The main body of the slide is white and empty.

Let's Review the Actions taken on Last Year's Action Items and see if things have gotten better or worse.

Contractor Web Site:



You asked that we post last year's meeting presentation and helpful links on the web for your reference.

Here's a screen capture of the page, and it includes a number of helpful links for Caltrans contractors.

Have any of you visited this page?

Note that this page includes Currently Advertised Project List, Map. Last Year's meeting notes, and FAQs.

Have you found it helpful?

Would you like to see anything else added?

Meeting Outreach:

- Last Year You Asked for a More Effective Contractor Outreach
- This Year we Called and Emailed 66 Contractors
- How Did We Do?

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Bonding Requirements:

Inquiry No.	Inquiry
1.0	<p data-bbox="462 487 979 751">Our surety, like most sureties today, will not bond projects lasting longer than 3 years including the warranty period for all but their largest contractors, i.e. ENR 1000 clients who bid on major construction projects. They take this position because they are concerned that their client's financial position could deteriorate the longer the contract runs while they have no way of evaluating that risk today. They will, however, agree to bond the project, if it is agreed in the contract that the surety is released from any liability on the project after 540 working days has expired or the total duration of the contract is reduced to 540 working days.</p> <p data-bbox="462 772 930 823">Is Caltrans willing to make this change to enable small businesses, like mine, to bid on this project?</p>

Bonding has been mentioned as a problem in the past.

Is there a \$ value under which bonding is most cost effective?

Is there a maximum time limit to your bonding availability?

Is this still an issue?

Timely Posting of Bids:

Awarded Contracts

Enter district or contract number: Example: 06- or 04-1234u4

Enter Bid Open Date: Example: 2008-07-21

Enter Award Date: Example: 2008-07-21

Enter Contractor Name: Partial names allowed

Search by type of work: Single word or phrase

1912 records found

Contract Number: 04-0C7404
Bid Opening Date: 2012-01-11
Advertising Date: 2011-10-31
Award Date: 2012-02-03
Contractor: GHILOTTI BROS INC
Phone number: (415)454-7011
Bid Amount: \$20,487,788.00
Project Location: 04-Mm-101-0 0/8.5
Type of Work: Asphalt Concrete surfacing

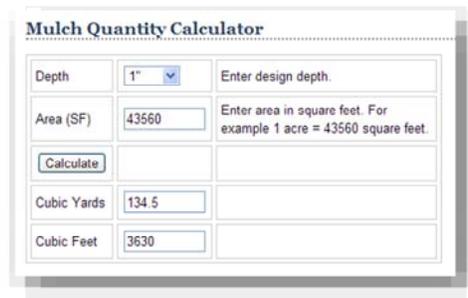
Non-Timely posting of Bid Results was mentioned as an issue at last year's meeting.

Still an issue?

Better or worse?

Mulch & Compost Quantities:

- Carefully Calculate Mulch & Compost Quantities
 - <http://www.dot.ca.gov/hq/LandArch/ec/organics/mulch.htm>
- Avoid “Double Specifying” Mulch & Compost



The image shows a screenshot of a web-based "Mulch Quantity Calculator". The form has a title "Mulch Quantity Calculator" and a dotted line separator. It contains several input fields and a button:

Depth	1" (dropdown)	Enter design depth.
Area (SF)	43560	Enter area in square feet. For example 1 acre = 43560 square feet.
Calculate		
Cubic Yards	134.5	
Cubic Feet	3630	

1. Calculate carefully correct quantities for Mulch and Compost. An online calculator has been provided to reduce these errors.

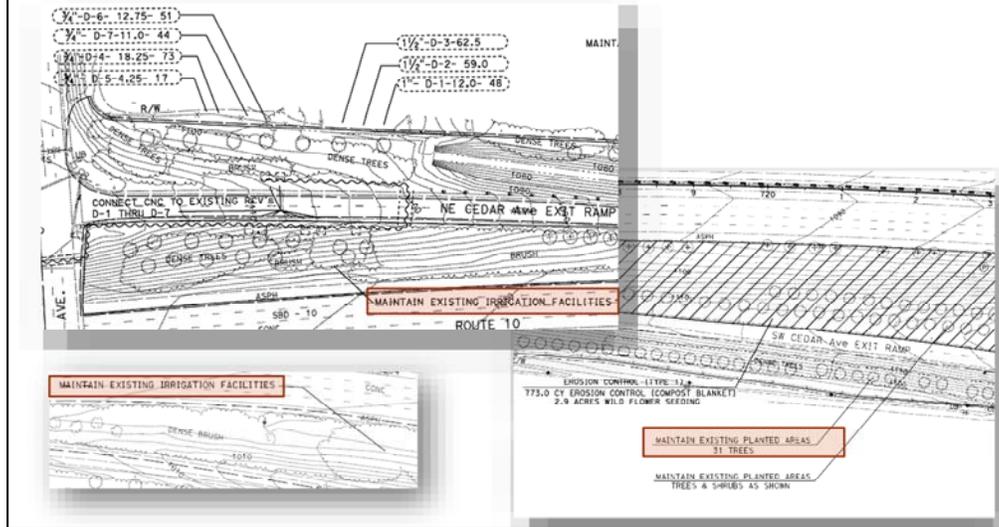
Better or worse?

2. We have asked (and are still asking) our designers to avoid specifying both a volume and a depth (CY and Inches) to avoid conflicting information.

Better or worse?

Existing Planting and Irrigation:

- Show Existing Planting and Irrigation on the Plans



1. This (District Landscape Architect) action item was identified in last year's meeting.

Show existing planting and irrigation systems on plan sheets where Check and Test and Maintain Existing work is specified.

Still a problem?

Better or worse?

Damage Repair:

5-1.39 DAMAGE REPAIR AND RESTORATION

5-1.39A General

Before Contract acceptance, restore damaged work to the same state of completion as before the damage. Restoration of damaged work includes restoration of erected falsework and formwork.

5-1.39C Landscape Damage

5-1.39C(1) General

Repair slopes or other existing facilities that were damaged after starting job site activities and before starting plant establishment.

As ordered, replace plants that have been damaged from either or both of the following conditions:

1. Ambient air temperature falling below 32 degrees F during the plant establishment period
2. Department or its supplier restricting or stopping water delivery during the plant establishment period

This plant replacement work is change order work.

5-1.39C(2) Plant Establishment Period of 3 Years or More

Section 5-1.39C(2) applies if a plant establishment period of 3 years or more is specified in the special provisions. Perform work specified in section 5-1.39C(2) as ordered.

Repair slopes or other existing facilities that were damaged before starting job site activities. This work is change order work.

Repair slopes or other existing facilities that were damaged by a change in the runoff pattern from that which existed on the date of the *Notice to Bidders* and was the result of work by others within the highway. This work is change order work.

Replace plants and repair slopes, irrigation systems, and other highway facilities damaged as a result of rain during the plant establishment period. The Department pays 1/2 the accumulated costs in excess of the greater of 5 percent of the plant establishment work or \$2,000; the Contractor pays the other 1/2. The Engineer determines the repair cost under section 9-1.04.

Last year it was mentioned that there have been problems with the 50/50 split on payment for damage repair.

As you can see from the specifications above – for projects that have a Plant Establishment Period exceeding 3 years, the Department splits the cost of repairing damage to plants, slopes and irrigation systems that exceed 5% of the PE cost, or \$2000, whichever is greater.

We were unable to get Construction to change this approach.

Is this still an issue?

If so, would you like to propose another approach.

Why?

Seed Testing and Seed Viability:

Botanical Name (Common Name)	Percent Germination (Minimum)	Pounds Pure Live Seed Per Acre (Slope Measurement)
Elymus glaucus, Berkeley (Blue Wile Rye, Berkeley) ¹	40	8
Hordeum brachyantherum var. 'californicum' (California Meadow Barley)	40	5
Lasthenia californica (Dwarf goldfields)	35	1
Lupinus nanus (Sky Lupine)	40	4
Melica californica (California Oniongrass)	30	5
Nassella lepida (Foothill Needlegrass)	30	4
Nassella pulchra (Purple Needlegrass)	35	8
Plagiobothrys stipitatus (Popcorn flower)	25	1
Plantago erecta (California Plantain)	35	3
Poa secunda (Native Pine Bluegrass) ¹	30	3
Vulpia microstachys (Three Weeks Fescue)	35	4
Total		46

Species	Minimum PLS	Live Seed Per PLS Lb.	Minimum Purity	Minimum Germ
Elymus glaucus Berkeley	85	100,000	90	85
Elymus glaucus El Dorado	85	100,000	90	85

1. We have asked our designers to be more careful to specify Purity and Germ Rates for seed species that are actually commercially available.
2. To help the Districts specify realistic germination requirements – we emailed out the S&S Seed November 2011 Seed Species list with Purity and Germ rates.

Seed Testing and Seed Viability:

- Carefully Specify Seed Purity & Germ Rates.

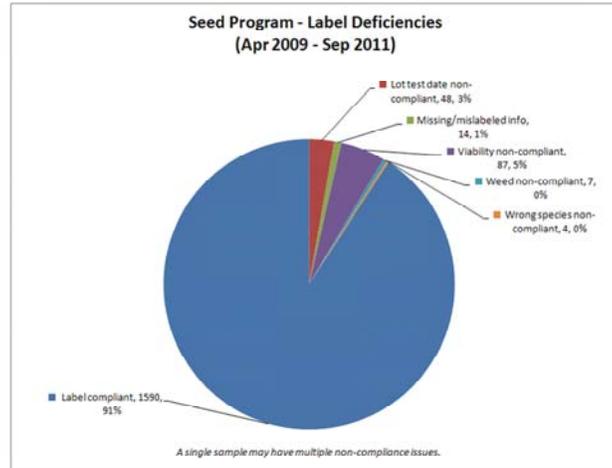


Chart above shows that approximately 5% of seed used in projects was Viability Non-Compliant 2009 – 2011.

Is this still an issue?

Better or worse?

Seed Viability Specifications:

21-1.01C Quality Control and Assurance

Obtain seed from lots that have been tested for purity and germination by a seed laboratory certified by the Association of Official Seed Analysts or by a seed technologist certified by the Society of Commercial Seed Technologists. Tests must be performed not more than 12 months before application.

Seed must not contain prohibited noxious weed seed or more than 1.0 percent total weed seed by weight.

Provide seed labels from the seed supplier that indicate:

1. Seed variety including botanical name and common name
2. Lot number or other lot identification
3. Origin
4. Net weight
5. Percent pure live seed
6. Percent total viability, which is equal to the sum of the percent germination, percent hard seed, and the percent dormant seed
7. Percent by weight inert matter
8. Percent by weight other crop seed
9. Percent by weight weed seed
10. Name of restricted noxious weed seed by number per pound of seed
11. Name and address of the supplier or grower responsible for the analysis

2010 Seed Quality Specification provided as a tool for group discussion.
NOTE: Total Viability is defined as MORE than just percent germination.

Remote Control Irrigation Spec

- You Asked for an Updated Central Control Irrigation Specification
- We Are Still Working on it.
- Feedback?

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Central Control Irrigation Systems.

Are these being specified?

How is the installation going?

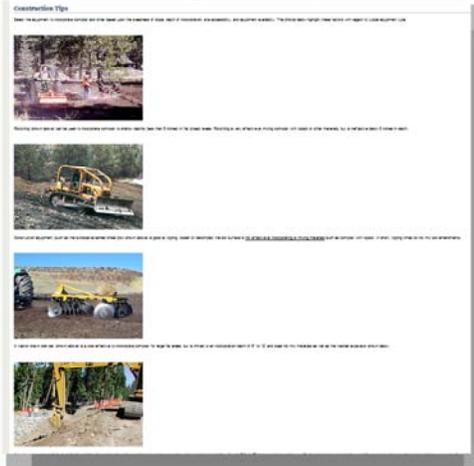
Are the manufacturer's supporting the products?

Are they working for you during Plant Establishment?

Any OTHER ideas on better ways to conserve water on landscape projects?

Incorporate Compost Guidance

- You Asked for Guidance on Incorporating Compost or Mulch Products



http://www.dot.ca.gov/hq/LandArch/ec/organics/compost_incorporate.htm

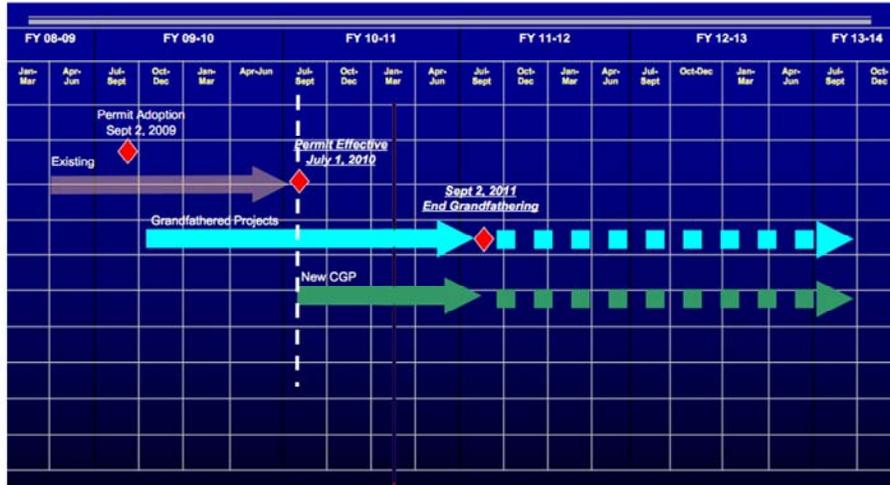
We posted lots of guidance on how to incorporate compost at various depths.

We covered multiple equipment types, together with the pros and cons of each approach.

We are NOT adding this information to our specifications because we want to specify the end result – not the specific method.

Our old 2006 specifications may have suggested “blowing” on the compost – we no longer are specifying how – just what we want done.

New CGP Storm Water Permit:



New Construction General Permit (CGP)
 Compliance Required by Caltrans NPDES Permit
 Fully Effective September 2, 2011 – “Grandfather” Period ended.

New Storm Water Permit:

- Projects with ≥ 1 Acre Disturbance, Except:
 - Lake Tahoe Projects
 - Routine Maintenance
 - Projects with 1-5 Acres of Disturbance With Rainfall Erosivity Factor < 5

New Storm Water Permit:

Rainfall Erosivity Waiver

Allows sites (>1 and <5 acres) to self-certify if the site rainfall erosivity (R value) is less than or equal to 5.

Risk-Based Permitting Approach

Establishes three levels: 1-3.

Risk is calculated by:

- 1) Project Sediment Risk, and
- 2) Receiving Water Risk.

Technology-Based Numeric Action Levels (NALs)

Includes NALs for pH and turbidity.

Highlights of requirements for new SWPPP Projects.

New Storm Water Permit:

Technology-Based Numeric Effluent Limitations (NELs)

Establishes daily average NELs for pH where there is a high risk of pH discharge

Establishes daily average NELs for turbidity for all discharges in Risk Level 3

Effluent Monitoring and Reporting

Requires monitoring effluent (storm water discharges) and reporting pH and turbidity values.

Receiving Water Monitoring and Reporting

Requires some Risk Level 3 dischargers to monitor receiving waters and conduct bioassessments.

Highlights of requirements for new SWPPP Projects.

New Storm Water Permit:

Rain Event Action Plan (REAP)

Requires Risk Level 2 and 3 projects to develop a Rain Event Action Plan (REAP) within 48 hours prior to a likely precipitation event.

Annual Reporting

Requires that projects enrolled for more than a continuous three-month period submit information and annually certify that their site is in compliance with CGP requirements.

Certification/Training

Requires training of key personnel to ensure their skills are adequate to comply with CGP requirements.

Highlights of requirements for new SWPPP Projects.

NOTE:

1. These requirements remain until the Department's Notice of Termination (NOT) is "approved" by the Regional Water Control Board.
2. These requirements MAY be required until the end of the Plant Establishment Period.

Read your Contract Documents carefully.

New Construction General Permit:

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity
1	070012	PROGRESS SCHEDULE (CRITICAL PATH METHOD)	LS	LUMP SUM
2	072006	TEMPORARY SUPPORT	LS	LUMP SUM
3	074016	CONSTRUCTION SITE MANAGEMENT	LS	LUMP SUM
4	074017	PREPARE WATER POLLUTION CONTROL PROGRAM	LS	LUMP SUM
5	022440	TURBIDITY CONTROL	LS	LUMP SUM
6	074042	TEMPORARY CONCRETE WASHOUT (PORTABLE)	LS	LUMP SUM
7	090100	TIME-RELATED OVERHEAD (WDAY)	WDAY	170
8	120090	CONSTRUCTION AREA SIGNS	LS	LUMP SUM

Speaking of Stormwater – Here's a “Head's-Up”.

There are two major categories of projects in relation to Stormwater Permit Requirements:

- a. Water Pollution Control Projects (WPCP) and
- b. Stormwater Pollution Prevention Program (SWPPP) Projects.

WPCP projects require approval of a Water Pollution Control Plan, appointment of a WPC manager, and a number of ongoing activities.

SWPPP projects are typically larger, require approval of a SWPPP, and a great deal of ongoing activities.

The graphic on the screen shows a bid item that identifies the project as a WPCP project.

New Construction General Permit:

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity
1	074016	CONSTRUCTION SITE MANAGEMENT	LS	LUMP SUM
2	074019	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	LUMP SUM
3	074033	TEMPORARY CONSTRUCTION ENTRANCE	EA	1
4	074035	TEMPORARY CHECK DAM	LF	320
5	074038	TEMPORARY DRAINAGE INLET PROTECTION	EA	2
6	074043	TEMPORARY CONCRETE WASHOUT BIN	EA	1
7	074056	RAIN EVENT ACTION PLAN	EA	21
8	074057	STORM WATER ANNUAL REPORT	EA	4
9	074058	STORM WATER SAMPLING AND ANALYSIS DAY	EA	3

Larger, more complex projects require preparation of a SWPPP and numerous activities – activities that will likely be required for the FULL LENGTH of the Plant Establishment period.

The graphic on the screen shows the Prepare SWPPP bid item that identifies the project as a SWPPP project.

If you see this and other highlighted bid items on a Highway Planting project – read your specification requirements very carefully. You want to clearly understand what Stormwater Permit related work is required by the project.

NOTE the quantity in the Estimate for Storm Water Annual Reports – a “4” here likely means 4-years of Storm Water Permit Compliance work.

The thing to look for here is the Prepare SWPPP item in the Estimate.

NOTE HOWEVER: That if you bid 3 Storm Water Sampling and Analysis Day 0 that if you need to perform “6” you WILL be paid for the extra work.

Let’s look next at a list of potential SWPPP project requirements...

New Construction General Permit:

10-1.02 WATER POLLUTION CONTROL

GENERAL

Summary

Discharges of storm water from the project must comply with NPDES General Permit for "Storm Water Discharges Associated with Construction and Land Disturbance Activities" (Order No. 2009-0009-DWQ, NPDES No. CAS000002) hereinafter called the "Permit." Manage work activities to reduce the discharge of pollutants to surface waters, groundwater, or municipal separate storm sewer systems including work items shown in the Bid Item List for:

1. Prepare Storm Water Pollution Prevention Plan. SWPPP preparation includes obtaining SWPPP approval, amending the SWPPP, preparing a CSMP and a SAP, and monitoring and inspecting WPC practices at the job site.
2. Storm Water Annual Report. Storm Water Annual Report preparation includes certifications, monitoring and inspection results, and obtaining Storm Water Annual Report acceptance.
3. Storm Water Sampling and Analysis Day. Storm Water Sampling and Analysis Day includes reporting of storm water quality per qualifying rain event. If specified for the risk level, the work includes preparation, collection, analysis, and reporting of storm water samples for turbidity, pH, and other constituents.
4. Rain Event Action Plan. If specified for the project risk level, REAP preparation includes preparing and submitting REAP forms and monitoring weather forecasts.

Do not start work until:

1. SWPPP is approved.
2. WDID is issued.
3. SWPPP review requirements have been fulfilled. If the RWQCB requires time for SWPPP review, allow 30 days for the RWQCB to review the SWPPP as specified under "Submittals" of these special provisions.

This project is Risk Level 2.

Here is a "Red Flag" to look for on SWPPP Projects.

The project Risk Level 1, 2 or 3 establishes a number of project requirements – for example monitoring, sampling and reporting requirements.

Don't worry about the Construction General Permit requirements – just read the project specifications before you place your bid!

Again – if you are the Prime on a Planting Project and it includes SWPPP Requirements – you may be responsible for Annual Reports

Bonding and Payment

Angela Shell

Caltrans Labor Compliance Officer

Presentation by Caltrans employee Angela Shell.

Bonding Requirements

- Payment Bond required from prime on contracts in excess of \$25,000 – 100% of the total bid
- Performance bond required from prime – 50% of the total bid
- Performance Bond not required for all Minor B contracts
- Contractor License Bond required for all licensed contractors

Presentation by Caltrans employee Angela Shell.

Subcontracting Requirements

- Public Contract Code 4100-4113
- Requires prime contractors to list a subcontractor whose portion of work will be in excess of $\frac{1}{2}$ of 1% or \$10,000, whichever is greater
- Primes may not substitute listed subcontractors with another subcontractor or the prime's own forces without Caltrans approval

Presentation by Caltrans employee Angela Shell.

Subcontracting Requirements

- There are 9 reasons for substitution on a Caltrans project
- The prime must provide a written request for substitution
- If the prime has not provided notice from the subcontractor approving/asking for the substitution, Caltrans will send a notice to the subcontractor with a 5 day response time

Presentation by Caltrans employee Angela Shell.

Subcontractor Substitution

- Failure by the subcontractor to respond timely results in automatic approval
- Subcontractor objections result in a hearing with Caltrans, prime, and subcontractor
- Decisions are issued by a Caltrans hearing officer
- Failure by prime to follow this process results in possible 0-10% penalty withhold and referral to CSLB for action against license

Presentation by Caltrans employee Angela Shell.

Prompt Payment

- Contractors must pay subcontractors within 7 days of receipt of payment of the work from Caltrans or the prime
- Prime contractor payment information is available online at:
<http://www.dot.ca.gov/hq/asc/oap/payments/>
- Contractors may withhold no more than 150% of the amount of any good faith dispute

Presentation by Caltrans employee Angela Shell.

Stop Notice

- Contractors/Suppliers/Workers may file a stop notice with Caltrans for failure to pay promptly
- Caltrans will withhold 125% of the stop notice to ensure payment resolution
- Preliminary 20 day notice must be filed by subcontractor – within 20 days of sub's work beginning

Presentation by Caltrans employee Angela Shell.

Stop Notice

- Stop Notice must be filed within 90 days of contract completion
- Prime contractor may file an affidavit disputing the stop notice
- Subcontractor may file a counter affidavit
- Stop notice funds are withheld until subcontractor provides release of claim

Presentation by Caltrans employee Angela Shell.

Other Options

- Contractors may file an online complaint with CSLB for non-payment issues
- Contractors may file a civil lawsuit to recoup funds owed
- Contractors may file directly with the payment bond company to secure funds owed

Presentation by Caltrans employee Angela Shell.

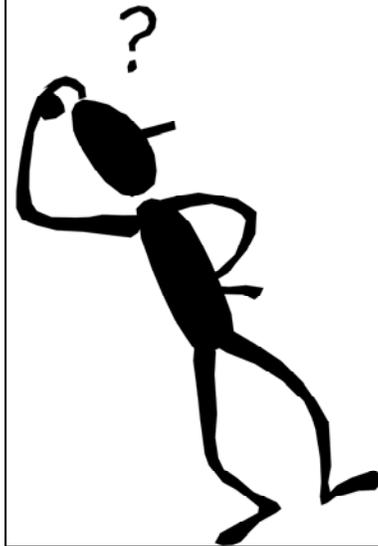
Prevailing Wage Compliance

- Weekly certified payroll records
- Payment of prevailing wage to workers
- Workers compensation insurance required covering all onsite workers
- Withholds for failure to comply with prevailing wage requirements

Presentation by Caltrans employee Angela Shell.



Compost and Mulch:



Another action item from last year's meeting was to examine the “fit” between our current Compost and Mulch specifications and the materials available from “industry”. We have heard some feedback that the materials specified have been difficult to locate.

In a nutshell, here is a description of the issue:

1. Mulch – we had been specifying SOME mulch products to be composted.
2. Compost – we had previously specified some coarse woody compost materials that many considered mulch. Many of these products were also too woody to pass the Stability and Maturity tests to be considered to be compost because they were too woody.

We had good reasons to specify things this way – but frankly this approach just didn't work. It was confusing (is it mulch or compost) and the materials just were not available.

Compost and Mulch:



Mulch = Mulch

Compost = Compost

Specify Mulch as Mulch, Compost and Compost.

Don't require woody mulch to be composted.

Call Mulch – mulch.

Call Compost – compost.

If a product is required to be composted – call it all compost.

If a designer required a product that is a mixture of compost and woody material – specify a mixture of compost and mulch.

Compost and Mulch:



20-7.02D(6) Mulch

20-7.02D(6)(a) General

Mulch must not contain more than 0.1 percent of deleterious materials such as rocks, glass, plastics, metals, clods, weeds, weed seeds, coarse objects, sticks larger than the specified particle size, salts, paint, petroleum products, pesticides or other chemical residues harmful to plant or animal life.

20-7.02D(6)(b) Tree Bark

Tree bark must be derived from Douglas fir, redwood, or cedar species.

Tree bark must be ground so that a minimum of 95 percent of the material by volume is less than 2 inches and no more than 30 percent by volume is less than 1 inch.

20-7.02D(6)(c) Wood Chips

Wood chips must be derived from clean wood and not contain leaves or small twigs.

Wood chips must have an average thickness of 1/16-inch, length between 1/2-inch and 3-inches, and a width 3/8-inch or greater. At least 95 percent of wood chips, by volume, must conform to these dimensions.

20-7.02D(6)(d) Shredded Bark

Shredded bark must be a blend of loose, long, thin wood or bark pieces derived from trees with a high length-to-width ratio. A minimum of 95 percent of the wood strands must have lengths from 2 to 8 inches, with a width and thickness from 1/8 to 1-1/2 inches.

20-7.02D(6)(e) Tree Trimmings

Tree trimmings must be derived from chipped trees and may contain leaves and small twigs.

Tree trimmings must have a particle size so that a minimum of 95 percent of the material by volume is less than 3 inches and no more than 30 percent by volume is less than 1 inch.

Here's the new Mulch spec – no composting required.

Compost and Mulch:



Compost Properties		
Property	Test method ^{1,2}	Requirement
pH	TMECC 04-11-A Elastometric pH 1.5 slurry method	6-8.5
Soluble salts	TMECC 04-10-A Electrical conductivity 1.5 Slurry Method dS/m (mmhos/cm)	0-10
Moisture content	TMECC 03-09-A Total Solids & Moisture at 70 ± 5 °C % Wet weight basis	30-60
Organic matter content	TMECC 05-07-A Loss-On-Ignition Organic Matter Method (LOI) % Dry weight basis	40-100
Maturity	TMECC 05-05-A Germination and vigor	--
	Seed emergence	80 or above
	Seedling vigor	80 or above
Stability	% Relative to positive control	
	TMECC 05-08-B Carbon dioxide evolution rate mg CO ₂ -C/g OM per day	8 or below
Particle size: fine compost	TMECC 02-02-B Sample sieving for aggregate Size classification % dry weight basis	min max
	Pass 5/8 inch sieve	95% --
	Pass 3/8 inch sieve	70% --
	Maximum particle length: 6 inches	
Particle size: medium compost	TMECC 02-02-B Sample sieving for aggregate Size classification % dry weight basis	min max
	Pass 2 inch sieve	95% --
	Pass 1 inch sieve (minimum 70% retained)	-- 30%
	Maximum particle length: 6 inches	
Particle size: coarse compost	TMECC 02-02-B Sample sieving for aggregate Size classification % dry weight basis	min max
	Pass 2-1/2 inch sieve	95% --
	Pass 3/8 inch sieve (minimum 60% retained)	-- 40%
	Maximum particle length: 6 inches	
Pathogen	TMECC 07-01-B Salmonella < 3 MPN per 4 grams, dry weight basis	pass
Pathogen	TMECC 07-01-B Fecal coliform bacteria < 1000 MPN per gram, dry weight basis	pass

Here's the new compost spec.

It includes fine, medium and coarse compost.

I left the coarse option in because that is what is required by our Compost Filter Sock SSP – and I have been told that it is indeed available.

Compost and Mulch:



To Hydroseed, Apply Straw, Tack with Hydromulch (Old Erosion Control (Type D))

EROSION CONTROL (TYPE 1)				
SEQUENCE	ITEM	MATERIAL		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	HYDROSEED	SEED	MIX 1	42 LB/ACRE
		FIBER	WOOD	500 LB/ACRE
STEP 2	STRAW	STRAW	WHEAT	2 TONS/ACRE
STEP 3	HYDROMULCH	FIBER	WOOD	500 LB/ACRE
		TACK	GUAR	125 LB/ACRE

To Incorporate Compost and Mulch into the Soil (1/3 by Volume) and top with RECP Netting and then Hydroseed

EROSION CONTROL (TYPE 4)					
SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	DEPTH
		DESCRIPTION	TYPE		
STEP 1	COMPOST	COMPOST	FINE	270 CY/ACRE	
STEP 2	MULCH	MULCH	TREE TRIMMINGS	270 CY/ACRE	
STEP 3	INCORPORATE MATERIALS	COMPOST/MULCH			12 INCHES
STEP 4	RECP (NETTING)	RECP (NETTING)	TYPE A		
STEP 5	HYDROSEED	SEED	MIX 3	30 LB/ACRE	
		FIBER	WOOD	500 LB/ACRE	
		TACK	GUAR	125 LB/ACRE	

Here's the final piece of the puzzle.

If a designer wants a mixture of compost and mulch, they will simply specify the use of BOTH products.

Note that the designer has the freedom to change the order of the materials at their will.

Note also that the designer has the ability here to specify the specific type of FIBER or TACK as they best see fit.

HQ believes that the District designers know best what materials are effective, cost efficient and available for each project.

If Guar is unavailable as a tackifier material – the designer is responsible to know this fact.

Compost and Mulch:



To Incorporate Compost and Woody Mulch into the Soil (1/3 by Volume) Drillseed and Tack

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	DEPTH
		DESCRIPTION	TYPE		
STEP 1	COMPOST	COMPOST	FINE	270 CY/ACRE	
STEP 2	MULCH	MULCH	TREE TRIMMINGS	270 CY/ACRE	
STEP 3	INCORPORATE MATERIALS	COMPOST/MULCH			12 INCHES
STEP 4	DRILL SEED	SEED	MIX 5	35 LB/ACRE	
STEP 5	HYDROMULCH	FIBER	WOOD	500 LB/ACRE	
		TACK	GUAR	125 LB/ACRE	

21-1.03N Incorporate Materials

Incorporate topsoil, duff, compost, and mulch to the depth shown until well mixed. Materials may be mixed together before incorporation if authorized.

Do not incorporate materials within 2 feet of the pavement edge.

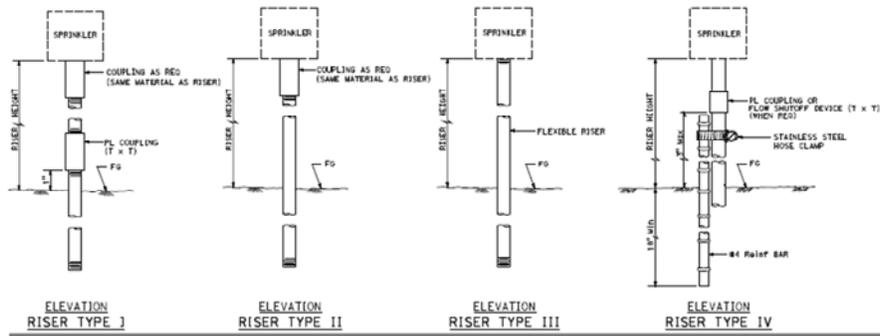
Incorporate straw with a roller made of approximately 7/8-inch steel plate equipped with straight studs placed approximately 8 inches apart and staggered. Studs must not be less than 6 inches long nor more than 6 inches wide and must be rounded to prevent the straw withdrawing from the soil. The roller weight must be sufficient to incorporate the straw into the soil to a depth that will not support combustion and result in a uniform surface.

Compact the area to a relative compaction between 82 percent and 90 percent except as otherwise specified in section 19-5.

Please NOTE how the specifications for Incorporate Materials work. This specification is Conditional – HOW it works is based upon WHAT materials are being incorporated.

Sprinkler Detail & Schedule?

□ Are They Broken?



Sub-Contractor Issues

- Timely Payment by Prime?
- Scope of Work Changed by Prime?

California Department of Transportation Winter 2011

These issues were mentioned last year as problems.

Still an issue?

Better or Worse?

OPEN FORUM DISCUSSION

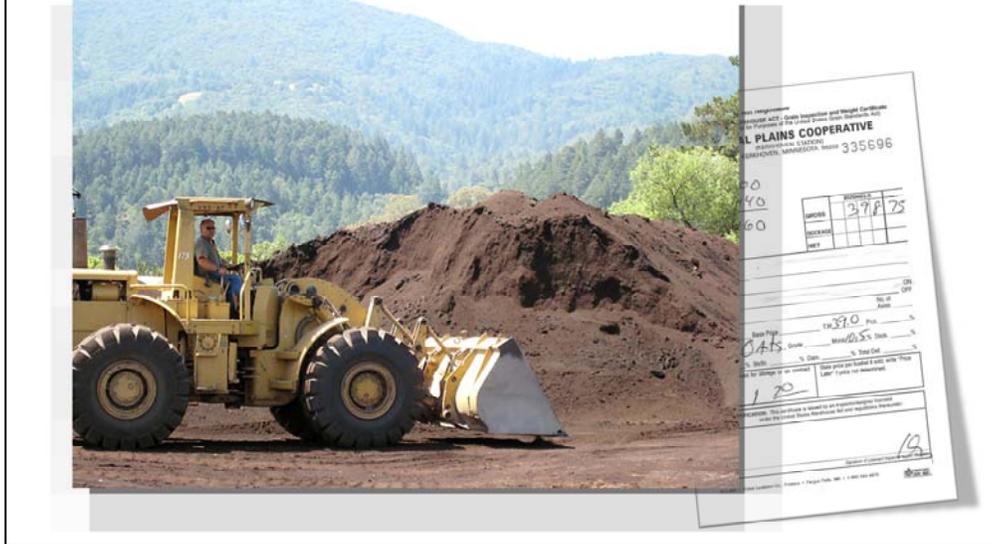
Exercise – Using the 2010 Specifications

Exercise – PSFM & BFM Specifications

Did we miss anything?

OTHER outstanding issues?

Does Mulch Require a Load Ticket?



Let's look at a question that was raised last year regarding Mulch. This will serve as a good example of seeing how the 2010 specifications work.

Submittal Requirements:

5-1.23 SUBMITTALS

5-1.23A General

Section 5-1.23 includes specifications for **action and informational submittals**.

Any submittal not specified as an informational submittal is an action submittal.

Each sheet of a submittal must include:

1. Contract number
2. District–County–Route–Post Mile
3. Structure name and number, if any

5-1.23B Action Submittals

5-1.23B(1) General

Action submittals include:

1. Shop drawings
2. Product data
3. Samples
4. Test samples
5. Quality control plans
6. Work plans
7. Material sources
8. Test data, test results, and evaluation reports

Maintain a sequential list of submittals except for samples, test samples, and material sources. With each individual submittal, submit a copy of the updated list.

Submit an action submittal before the start of the affected work to allow for review and corrections without work delays.

Except for test samples, obtain the Department's authorization for action submittals before you perform work based on them.

5-1.23C Informational Submittals

Informational submittals include:

1. Assignments
2. Certificates of compliance
3. Manufacturer instructions not associated with drawing submittals
4. Notifications
5. PLACs
6. Subcontracts

This is a good question. Let's look at the specifications to see what the answer might be.

Let's look at the specifications for Submittals first.

Two kinds of submittals – Action and Information.

Unauthorized Action Submittals could delay your work.

9 PAYMENT

9-1.01 GENERAL

Section 9 includes specifications related to work payment.

9-1.02 MEASUREMENT

9-1.02A General

Except for final pay item quantities, the Engineer measures quantities for payment.

9-1.02B Weighing Equipment and Procedures

9-1.02B(1) General

Measure material paid for by weight on sealed scales regularly inspected by the Department of Food and Agriculture's Division of Measurement Standards or its designated representative.]

Obtain authorization of portable vehicle scale installations before sealing.

9-1.02B(2) Equipment

Each scale must be long enough to fit an entire vehicle or a combination vehicle on the scale deck.

Submit a public weighmaster's certificate or certified daily summary weigh sheets for each weighed material quantity. The Department may witness material weighing and check and compile the daily scale weight record.

Each vehicle operator must obtain weight or load slips from the weighmaster. Submit these records at the delivery point.

9-1.02B(3) Procedures

Weigh empty vehicles used to haul material paid for by weight daily. Each vehicle must have a legible identification mark. The Department may verify material weight by having an empty and loaded vehicle weighed on any scale the Engineer designates.

If imported topsoil, soil amendment, or mulch is measured by volume:

1. Each vehicle must allow for an accurate contents determination
2. Unless vehicles are of uniform capacity, each vehicle must have a legible identification mark showing its volume capacity
3. Load vehicles to at least the volume capacity
4. Level vehicle loads on arrival at the delivery point

If determining a quantity paid on a volume basis is impractical or if you request and the request is authorized, weigh the material and the Engineer converts the result to a volume measurement. The Engineer determines the conversion factors and, if you agree, adopts this method of measurement.

Here are the general Payment specifications that discuss Payment (and Measurement).

Submittal Requirements:

Bid Item List

Item Code	Item Name	Unit of Measure
202011	MULCH	CY

Mulch Payment Clause

20-7.04 PAYMENT

Items paid by the sq yd are calculated by actual or computed slope measurements.

Mulch and soil amendment are measured in the vehicle at the point of delivery.

General Payment

9-1.02B(3) Procedures

Weigh empty vehicles used to haul material paid for by weight daily. Each vehicle must have a legible identification mark. The Department may verify material weight by having an empty and loaded vehicle weighed on any scale the Engineer designates.

If imported topsoil, soil amendment, or mulch is measured by volume:

1. Each vehicle must allow for an accurate contents determination
2. Unless vehicles are of uniform capacity, each vehicle must have a legible identification mark showing its volume capacity
3. Load vehicles to at least the volume capacity
4. Level vehicle loads on arrival at the delivery point

If determining a quantity paid on a volume basis is impractical or if you request and the request is authorized, weigh the material and the Engineer converts the result to a volume measurement. The Engineer determines the conversion factors and, if you agree, adopts this method of measurement.

According to the Bid Item – Mulch is measured and paid for by volume.

According to the Mulch Payment clause – mulch is measured in the truck at the point of delivery.

According to the Payment Specifications IF mulch is measured by volume – it must be marked to facilitate this visual measurement.

So, do you think that a load ticket is required for Mulch that is measured by volume?

PSFM Specification

Delete section 21-1.02F(2) Polymer Stabilized Fiber Matrix Tackifier
Add to section 21-1.03J Polymer Stabilized Fiber Matrix

21-1.03J (1) General

Polymer stabilized fiber matrix must be a hydraulically applied material consisting of fiber and tackifier, and may also include seed and fertilizer as shown]

21-1.03J (2) Materials

Fiber and seed used for polymer stabilized fiber matrix must comply with section 21-1.02.

Fiber for polymer stabilized fiber matrix must be at least 50 percent wood fiber. Any remaining percentage must be cellulose fiber, alternate fiber, or a combination.

Tackifier must be (1) free from growth or germination inhibiting factors, (2) nonflammable, (3) nontoxic to aquatic organisms, ~~and~~ (4) functional for a minimum of 180 days, (5) have a cure time of less than 48 hours, (6) must not disperse upon rewetting, and (7) biodegradable.

Tackifier for polymer stabilized fiber matrix may be either a liquid product or dry product prepackaged with the fiber, and must conform to be one of the following.

1. A liquid formulation with polyacrylamide (PAM) as the primary active ingredient. PAM must be a linear anionic copolymer of acrylamide and sodium acrylate, with a residual monomer content that is at most 0.05 percent by weight. Liquid Tackifier must be labeled as one of the following:
 - 1.1. A water-in-oil emulsion containing at least 2.6 pounds of pure PAM per gallon. Pure PAM must be at least 30 percent active.
 - 1.2. A liquid dispersed polyacrylamide (LDP) containing at least 4.4 pounds pure PAM per gallon. Pure PAM must be at least 35 percent active.
2. A dry prepackaged product with tackifier and fiber premixed by the manufacturer. Tackifier must be at least 5 percent of the weight of the dry fiber including the weight of the activating agents and additives. Prepackaged tackifier must be labeled as one of the following.
 - 2.1. An organic high viscosity colloidal polysaccharide with activating agents.
 - 2.2. A blended hydrocolloid-based binder.

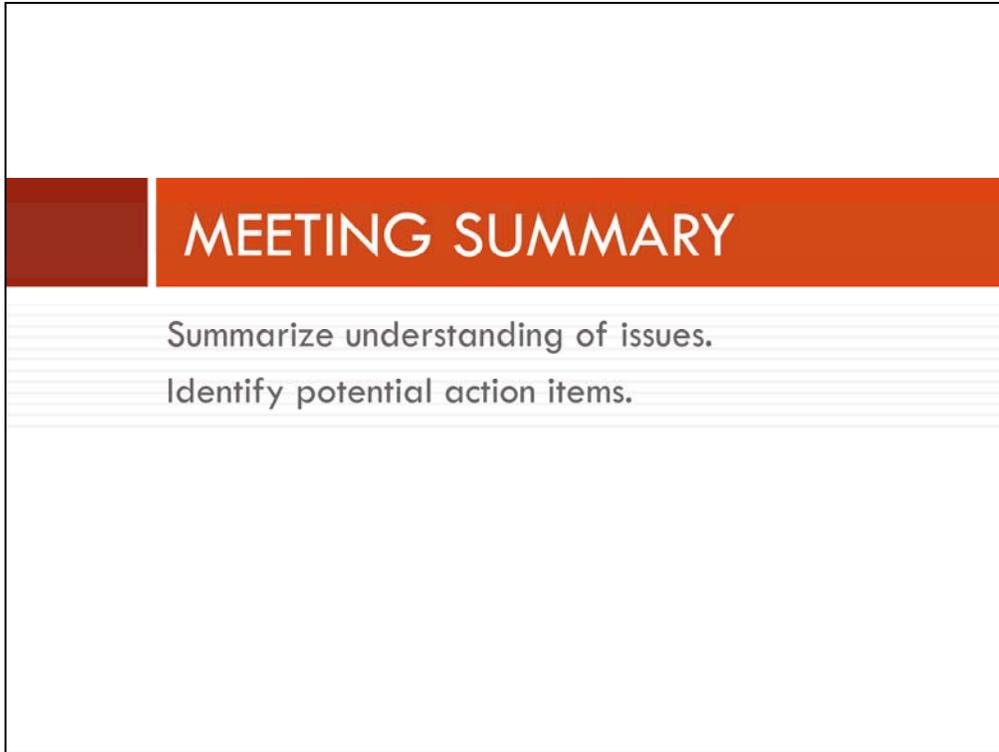
Open forum discussion on proposed PSFM specification changes.

BFM PSFM Guidance

Draft Guidance

Product	Max Slope	Functional Longevity	Curing Time	Fiber Application Rate	Dry Tackifier Rate	Liquid Tackifier Rate
PSFM	3:1	3-6 months	12-36 hrs	2,000-3,000 lbs/ac	5% by Weight	9 Gal/Ac
BFM	2:1	6-12 months	24-28 hrs	3,000-4,000 lbs/ac	10% by Weight	10 Gal/Ac

Asking for feedback and comments regarding the guidance for BFM and PSFM in this slide.



MEETING SUMMARY

- Summarize understanding of issues.
- Identify potential action items.

Jack summarizes the meeting.

CRITIQUE & EVALUATION	
What went well?	
What needs improvement?	
What should we do differently next time?	

Jack asks about what went well, what could be improved.

Adjourn

Keith's closing remarks

Keith provides closing remarks.