Waste Tire Manifest System

Status Update

CIWMB

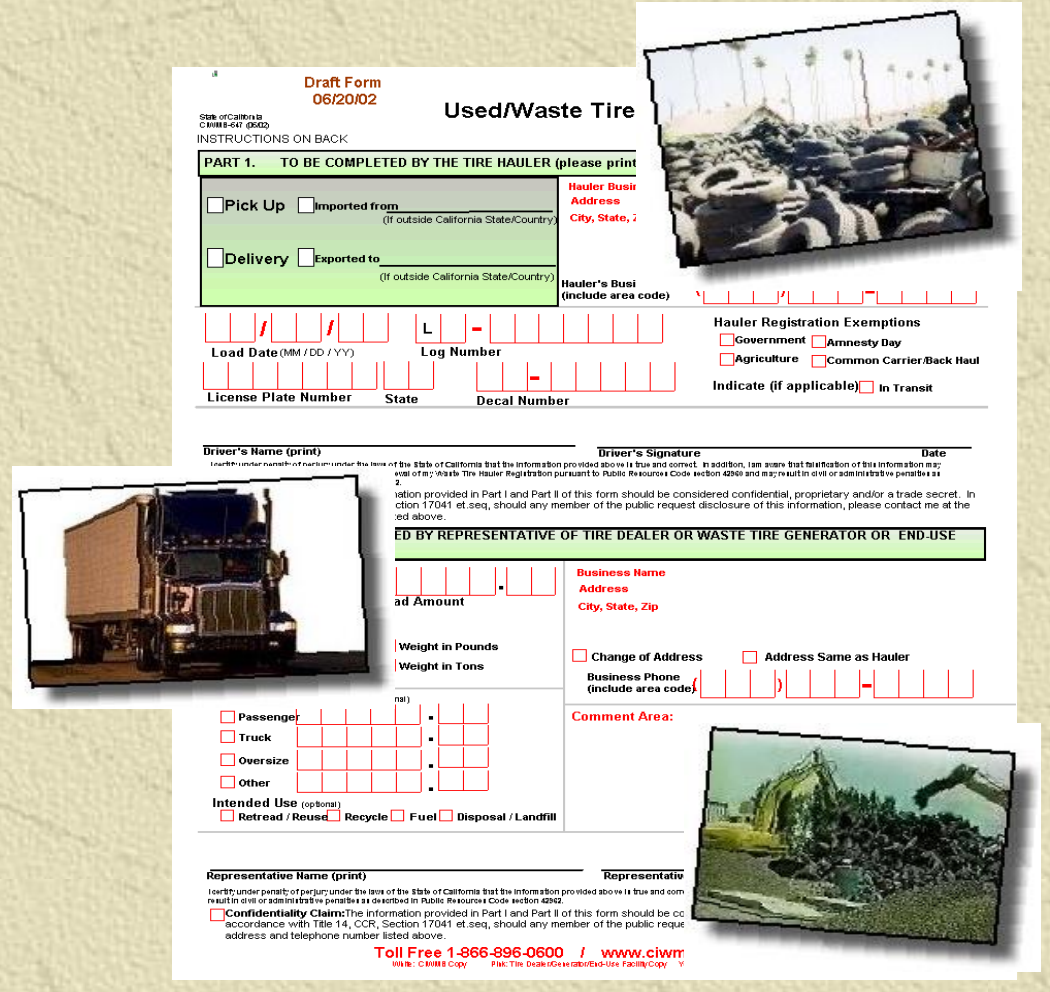
Board Meeting

August 20, 2002

Central Valley Hearing Room

Cal/EPA Building

Sacramento, CA



Presentation Topics

I. **Program Background & Overview of SB 876**

II. **In-depth review of the Technical Implementation of the Waste Tire Manifest System (WTMS)**

   a. ***System Requirements and Basic Analysis***
   b. ***General System Design and Flow***
   c. ***Detailed Forms Development***
   d. ***Scanning: Design and Testing***
   e. ***Data Design (ERD), Business Processes & Workflow***
   f. ***Print Alternatives and Electronic Data Transfer***
   g. ***Communications Plan & Website***

III. **Timeline and Next Steps**

I. Overview of SB 876

- **Increase of Tire Fee** to $1.00
- Extending Fee to **New Cars**
- **Redefinition** of "Waste Tire"
- Increased **funds for waste tire** recycling & recovery
- **Strengthened enforcement** through changes to Waste Tire Hauler and Waste Tire Facility Permits.
- **Development of 5 Year Plan** to implement SB876
- Required the development of an **automated Waste Tire Manifest System**

II.a WTMS : System Requirements

… *Based on Statutes, Regs, and Business Process*

- Manifest and Trip Log forms completed for each load of tires.
- Manifest must include –
  - Hauler information
  - Generator / End Use Facility information
  - Tire load measurement
  - Type of tires
  - Tire load date
  - Load origin
  - Possible Intended Use
- Every generator, hauler and waste tire facility operator is required to submit a legible copy of the manifest or trip log.
- Paper and electronic form submittal options
- Ability to match, reconcile and audit manifest information

II.a System Requirements

Objectives …

- Ability to identify, for audit purposes, those entities that fail to meet timely submission of accurate manifest information
- Capability to generate random samples of submitted forms for audit reviews.
- Enforcement of PRC Section 42961.5 concerning Waste and Used Tires.
- Incorporate existing Waste Tire Hauler Registration System into this automated system development.

II.a Analysis – Focus Meetings

- Focused Meetings w/ Regulated Community
  - October 11 and 16, 2001
    - Northern California, Sacramento
    - Southern California, Diamond Bar
  - Attendees included Tire industry representatives, Haulers, Generators, End Use facility operators, and Local government.
  - Summary of Meeting and follow up issues provided to participants and on Website

II.a Analysis – Public Meetings

- Open Public Meetings
  - November 6 and 8, 2001
    - Northern California, Sacramento
    - Southern California, Diamond Bar
  - Invited haulers, end-use facility operators, Tire generators (Firestone, Goodyear, etc.), Tire industry representatives.
  - Summary of Meeting and follow up issues provided to participants and on Website.

II.a Analysis – Onsite Visits & Pilot Test

- Onsite Visits to Several Waste Tire Haulers and Review of Business Processes
- Ride-alongs to document Hauler / Driver – Generator transactions
- Pilot Testing of forms and processes
  - Northern California (March 2002)
  - Southern California (March 2002)
  - Debriefing meeting and Conference Calls

II.a Basic Analysis – *Summary*

- Meet stated Legislative and Programmatic requirements for “closing the loop”; all parties must submit forms.
- Ensure the ability to accommodate all 4 waste tire hauler scenarios / alternative scenarios.
- Make the process and procedure for form completion by generator, hauler and end use facility the same regardless of trip type.
- Develop forms that are standard, easy to use and lend themselves to high volume processing.

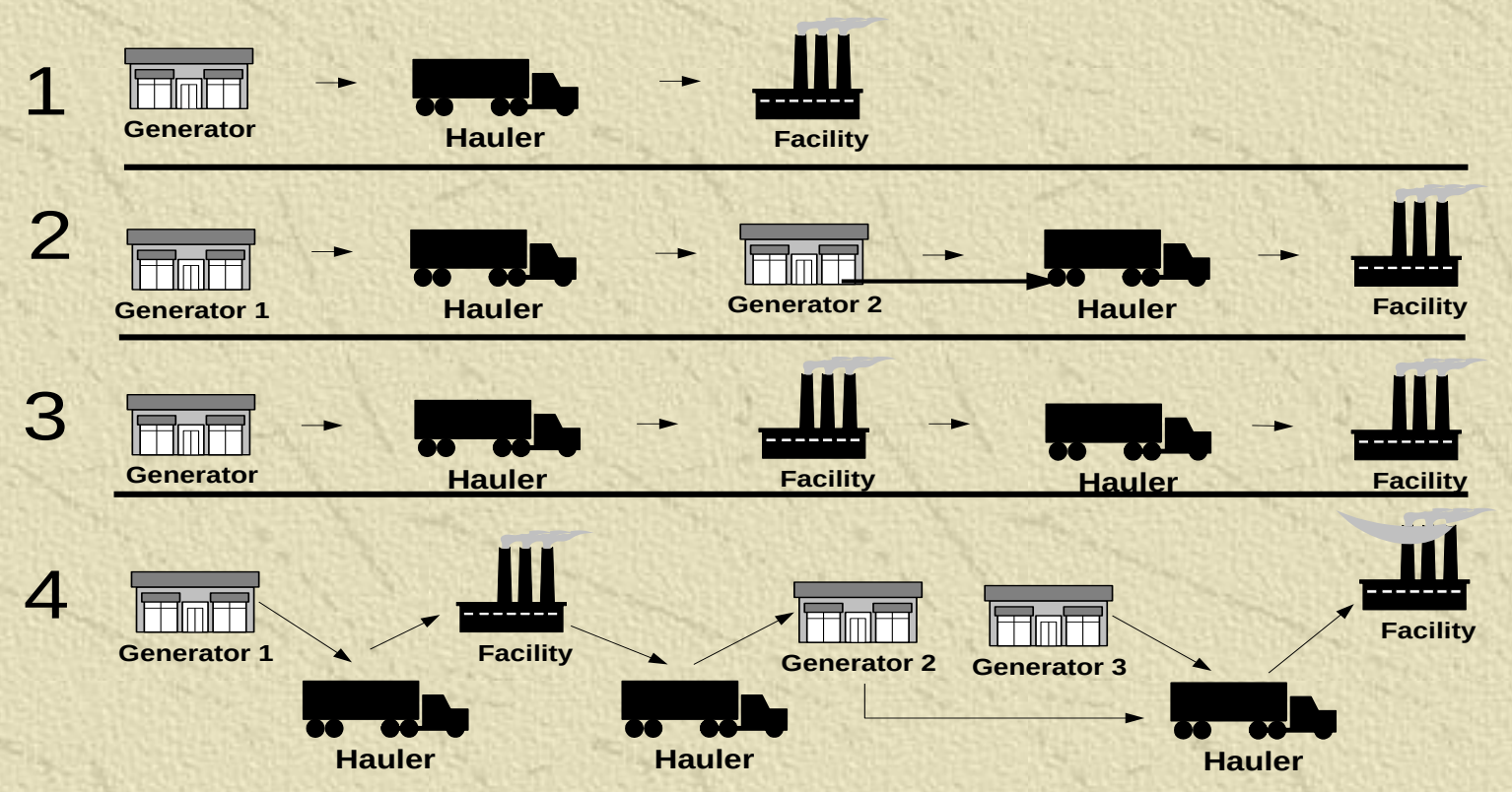
II.b General System Design

Important Result from Analysis …

- **One form cannot** meet statutory requirements in supporting four basic Hauler Trip Types
- **One form cannot** meet statutory requirements and complexities of the various hauler scenarios
- **<u>Two Forms are needed</u>** to support the basic Hauler Trip Types and various other 'scenarios'
  - **Manifest Form for Pickup and Deliveries**
  - **Trip Log Form (per Hauler Load)**

Four Basic Tire Load Trip Types

Waste Tire Scenarios for Pickups and Deliveries



Alternative Haul Scenarios

Scenario	Origination	Hauler	End Use / Facility
1	**CA Generator** →	**Registered Hauler**** →	**Out of CA/Country End Use**
Reporting Requirement:	Manifest Part 2	Complete Manifest Part 1 and Log. On Manifest & Log indicate export and destination state/country.	Sign Trip Log
2	**a) Out of State** **b) Out of State (sealed container)** →	**Common Carrier*** →	**CA End Use**
Reporting Requirement:	None	None	Manifest Part 1, 2 Indicate Common Carrier and if registered hauler, note CIWMB ID #.
3	**a) CA Generator** **b) CA Generator (sealed container)** →	**Common Carrier** →	**Out of CA/Country End Use**
Reporting Requirement:	Manifest Part 1, 2. Indicate Export, the destination state/country and Common carrier. If registered hauler, note CIWMB ID #.	None	None

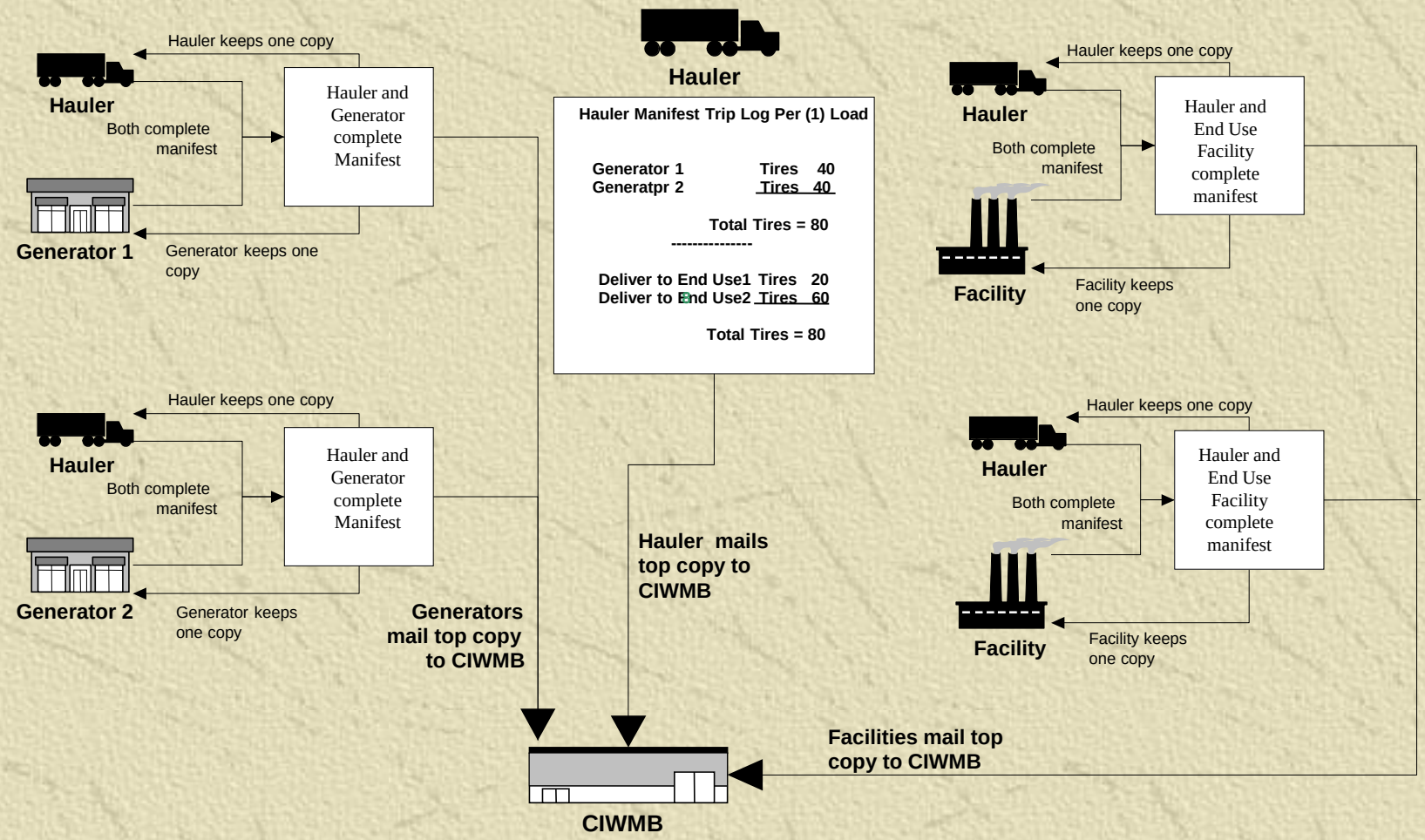
Alternative Haul Scenarios

4	**CA Generator** →	**Registered Hauler (truck/trailer drop)** **Registered Hauler (truck/trailer pick up)**	**Transit** ---------- → **CA End Use**
Reporting Requirement:	Manifest Part 2	(Haulers 1 and 2) Manifest Part 1 and Log. Indicate "In Transit" on log and manifest. (Hauler 1) Initiate a new Trip Log for next hauler by transferring the existing load number onto a new log form.	Manifest Part 2
5	**CA Generator (sealed container)** →	**Common Carrier** →	**CA End Use**
Reporting Requirement:	Manifest Part 1, 2. Indicate Common Carrier and if registered hauler, note CIWMB ID #.	None	Manifest Part 1, 2. Indicate Common Carrier and if registered hauler, note CIWMB ID #.
6	**Out of State (sealed container)** →	**Common Carrier** →	**Out of CA/Country End Use**
Reporting Requirement:	None	None	None
7	**Out of State** →	**Registered Hauler** →	**Out of CA/Country End Use**
Reporting Requirement:	None	Trip Log and indicate Import/Export Destination state/country	Sign Trip Log

*Common Carrier is referred to as a certified exempt carrier of used/waste tires
**Registered Hauler is a certified, decaled, hauler of used/waste tires and is issued a CIWMB ID number

II.b System Design -- *Big Picture View*

Waste Tire Scenario for Multiple Pickups and Multiple Deliveries



II.c Detailed Forms Development

- All Forms must be submitted at least **quarterly**
- **Volume Est**.: 150,000 Loads/Year;
  450,000 Forms/Year.
- All Forms submitted (Generator, Hauler and End Use Facility) … Will be **scanned and imaged**.
- Images of forms will be available via **automated retrieval,** primarily for use by Waste Tire program staff reviewing manifests

II.c Detailed Forms Development

- **‘OCR’** scan of Manifest # and Trip Log # and related Manifest Form and Trip Log Form data. Most information to be scanned will be numeric (higher accuracy)
- All CIWMB ‘identifiers’ will use a “checksum” digit to quickly identify transposition of numbers, read errors, etc.
- All fields will have validation rules to the extent possible to ensure high data integrity and accuracy.
- Web-based **On-Line “forms” submission** to be developed as part of this system.

II.c Detailed Forms Development

Two Forms to be developed

Waste Tire Manifest Form:

To be completed by the …
Generator or End Use Facility Operator.

Used/Waste Tire Trip Log Form:

To be completed by the …
Registered Waste Tire Hauler.

Waste Tire Manifest Form:

- *Completed by Generator or End Use Facility (1 copy)*
- *Another copy provided to Hauler*
- *Original to CIWMB*

Draft Form
06/20/02

State of California
CIWMB-647 (06/02)

California Integrated Waste Management Board
PO Box 1259, Sacramento, CA 95812-1259

Used/Waste Tire Manifest

Manifest Number M9-1258744

INSTRUCTIONS ON BACK

PART 1. TO BE COMPLETED BY THE TIRE HAULER (please print)

☐ Pick Up ☐ Imported from _____ (If outside California State/Country)

☐ Delivery ☐ Exported to _____ (If outside California State/Country)

Hauler Business Name
Address
City, State, Zip

Hauler's Business Phone (include area code) ( ) -

Load Date (MM / DD / YY) / /

Log Number L -

License Plate Number

State

Decal Number -

Hauler Registration Exemptions
☐ Government ☐ Amnesty Day
☐ Agriculture ☐ Common Carrier/Back Haul

Indicate (if applicable) ☐ In Transit

Driver's Name (print)

Driver's Signature

Date

I certify, under penalty of perjury, under the laws of the State of California that the information provided above is true and correct. In addition, I am aware that falsification of this information may result in suspension, revocation, or denial of renewal of my Waste Tire Hauler Registration pursuant to Public Resources Code section 42960 and may result in civil or administrative penalties as described in Public Resources Code section 42962.

☐ **Confidentiality Claim:** The information provided in Part I and Part II of this form should be considered confidential, proprietary and/or a trade secret. In accordance with Title 14, CCR, Section 17041 et.seq, should any member of the public request disclosure of this information, please contact me at the address and telephone number listed above.

PART 2. TO BE COMPLETED BY REPRESENTATIVE OF TIRE DEALER OR WASTE TIRE GENERATOR OR END-USE FACILITY (please print)

Tire Program ID

Load Amount .

Load Type
☐ Whole Tire Count ☐ Weight in Pounds
☐ Volume Cubic Yards ☐ Weight in Tons

Tire Types and Amounts (optional)
☐ Passenger .
☐ Truck .
☐ Oversize .
☐ Other .

Intended Use (optional)
☐ Retread / Reuse ☐ Recycle ☐ Fuel ☐ Disposal / Landfill

Business Name
Address
City, State, Zip

☐ Change of Address ☐ Address Same as Hauler

Business Phone (include area code) ( ) -

Comment Area:

Representative Name (print)

Representative Signature

Date

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Toll Free 1-866-896-0600 / www.ciwmb.ca.gov/Tires/

White: CIWMB Copy Pink: Tire Dealer/Generator/End-Use Facility Copy Yellow: Hauler Copy

Manifest Form Top

Draft Form
06/20/02

California Integrated Waste Management Board
PO Box 1259, Sacramento, CA 95812-1259

State of California
CIWMB-647 (05/02)

Used/Waste Tire Manifest

Manifest Number M9-1258744

INSTRUCTIONS ON BACK

PART 1. TO BE COMPLETED BY THE TIRE HAULER (please print)

☐ Pick Up ☐ Imported from _____
(If outside California State/Country)

☐ Delivery ☐ Exported to _____
(If outside California State/Country)

Hauler Business Name
Address
City, State, Zip

Hauler's Business Phone (include area code) ( ) -

Load Date (MM / DD / YY) / /

Log Number L -

License Plate Number

State

Decal Number -

Hauler Registration Exemptions
☐ Government ☐ Amnesty Day
☐ Agriculture ☐ Common Carrier/Back Haul

Indicate (if applicable) ☐ In Transit

Driver's Name (print)

Driver's Signature

Date

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Manifest Form - Bottom

PART 2. TO BE COMPLETED BY REPRESENTATIVE OF TIRE DEALER OR WASTE TIRE GENERATOR OR END-USE FACILITY (please print)

Tire Program ID

Load Amount

Load Type

- ☐ Whole Tire Count
- ☐ Weight in Pounds
- ☐ Volume Cubic Yards
- ☐ Weight in Tons

Tire Types and Amounts (optional)

- ☐ Passenger
- ☐ Truck
- ☐ Oversize
- ☐ Other

Intended Use (optional)

☐ Retread / Reuse ☐ Recycle ☐ Fuel ☐ Disposal / Landfill

Business Name

Address

City, State, Zip

☐ Change of Address ☐ Address Same as Hauler

Business Phone (include area code) ( ) -

Comment Area:

Representative Name (print) | Representative Signature | Date

I certify, under penalty of perjury, under the laws of the State of California that the information provided above is true and correct. In addition, I am aware that falsification of this information may result in civil or administrative penalties as described in Public Resources Code section 42962.

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Toll Free 1-866-896-0600 / www.ciwmb.ca.gov/Tires/

White: CIWMB Copy Pink: Tire Dealer/Generator/End-Use Facility Copy Yellow: Hauler Copy

Used/Waste Tire Trip Log

Draft Form
06/24/02

State of California
CIWMB-648 (06/02)

California Integrated Waste Management Board
PO Box 1259, Sacramento, CA 95812-1259

Used/Waste Tire Trip Log

Log Number: L7-2587565

INSTRUCTIONS ON BACK

For logs that continue onto more than one page

L - Master Log Number

- Decal Number

/ / Load Date (MM / DD / YY)

Hauler Business Name
Address
City, State, Zip

☐ Change of Address

Hauler's Business Phone (include area code) ( ) -

Manifest Number		Load Type		Load Amount
M -	☐ Pickup ☐ Delivery	☐ Whole Tire (Count) ☐ Volume (Cu. Yds.)	☐ Weight (Lbs.) ☐ Weight (Tons)	.
M -	☐ Pickup ☐ Delivery	☐ Whole Tire (Count) ☐ Volume (Cu. Yds.)	☐ Weight (Lbs.) ☐ Weight (Tons)	.
M -	☐ Pickup ☐ Delivery	☐ Whole Tire (Count) ☐ Volume (Cu. Yds.)	☐ Weight (Lbs.) ☐ Weight (Tons)	.

Representative Name (print) | Representative Signature | Date

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Toll Free 1-866-896-0600 / www.ciwmb.ca.gov/Tires/

White: CIWMB Copy Pink: Tire Dealer/Generator/End-Use Facility Copy Yellow: Hauler Copy

II.c Forms: Pilot Field Testing

- Field Test Period ran March 6 -- 22, 2002
- CIWMB Training of Participants March 5/ 6
- CIWMB Logistical Support during testing period
- Pilot Test Participants Northern California

  Les Schwab- Folsom, Golden By Products - Merced, Fresno County Landfill, Tri C – West Sacramento

- Pilot Test Participants Southern California
  - Lakin Tire Company- Santa Fe Springs, Riverside County Landfill, Azuza Landfill

II.c Forms: Field Test Results

- WTMS Business Processes / Relationships were validated for Generator, Hauler and End Use Facility in load tracking
- Forms must be easy to understand, use
- Haulers are the key entity in the process
- Need for clear, unambiguous instructions
- Haulers perform administrative services for Generators
- Confidentiality is *very* important

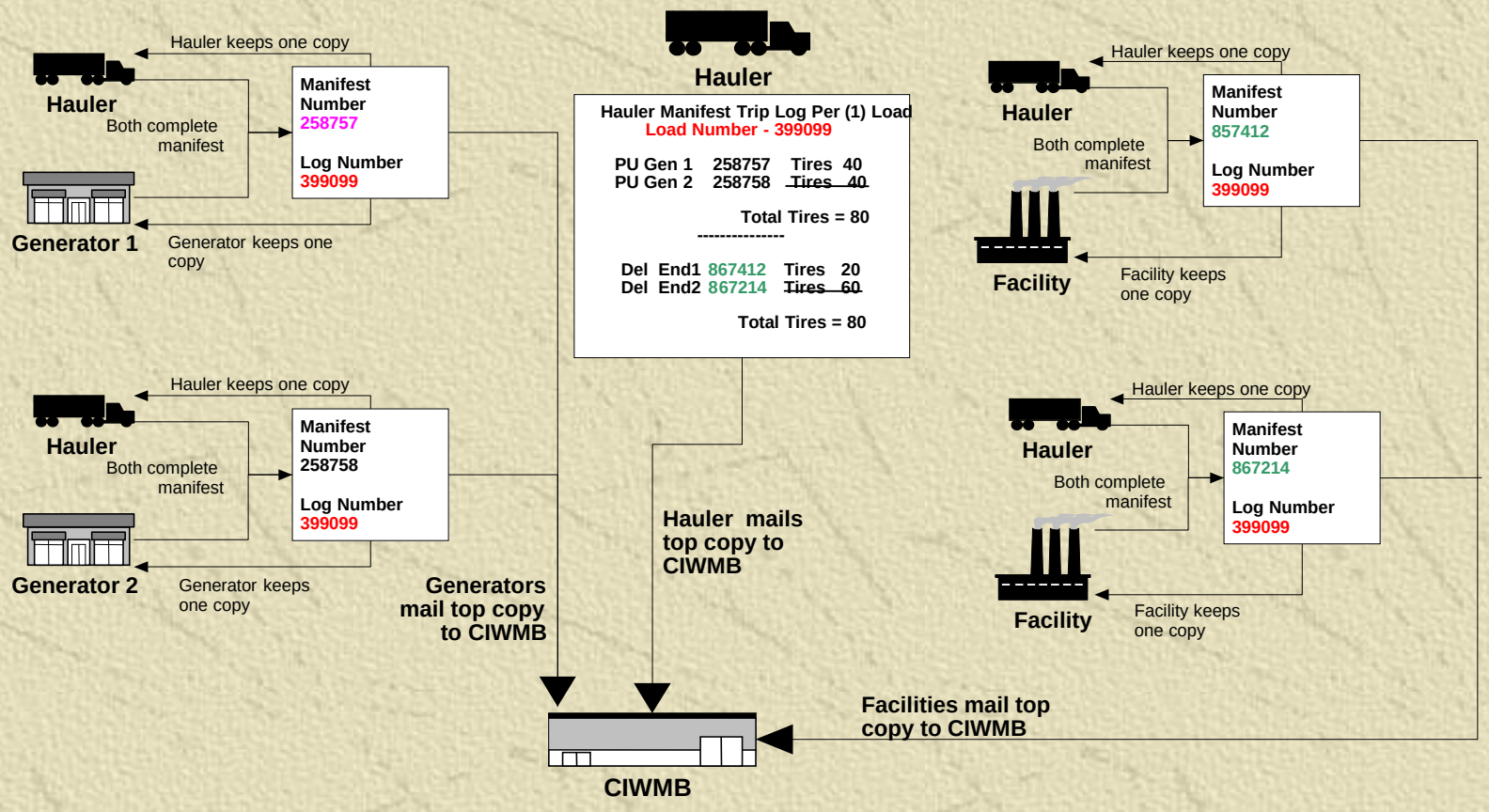
II.c Forms: Field Test Results (cont'd)

- High volume Haulers (GBP, Lakin, etc.) have some *automation practices in place* for routing, for invoicing and tracking of tires loads.
- Routing is key to large business operation and is tied to a variety of business processes.
- Large operations perform much administrative paperwork *for generators in advance* Need to allow for hauler pre printing of manifest and trip logs. This speeds up the manifest form and trip log form pre printing / routing process.
- *Proposed WTMS business processes/ forms will work within a large hauler operation.*

IIc. WTMS Big Picture

Feasibility Study Report

Waste Tire Scenario for Multiple Pickups and Multiple Deliveries



Data Reconciliation Example

Manifest Number
258757

Log Number
399099

Generator

Manifest Number
258758

Log Number
399099

Hauler

Hauler Manifest Trip Log (1)
perLoad
Load Number 399099

PU Gen 1	258757	Tires 40
PU Gen 2	258758	Tires 40

Total Tires = 80

Del	End1	857412	Tires 20
Del	End2	867214	Tires 60

Total Tires = 80

Manifest Number
857412

Log Number
399099

End Use Facility

Manifest Number
867214

Log Number
399099

Partial Submission Scenarios

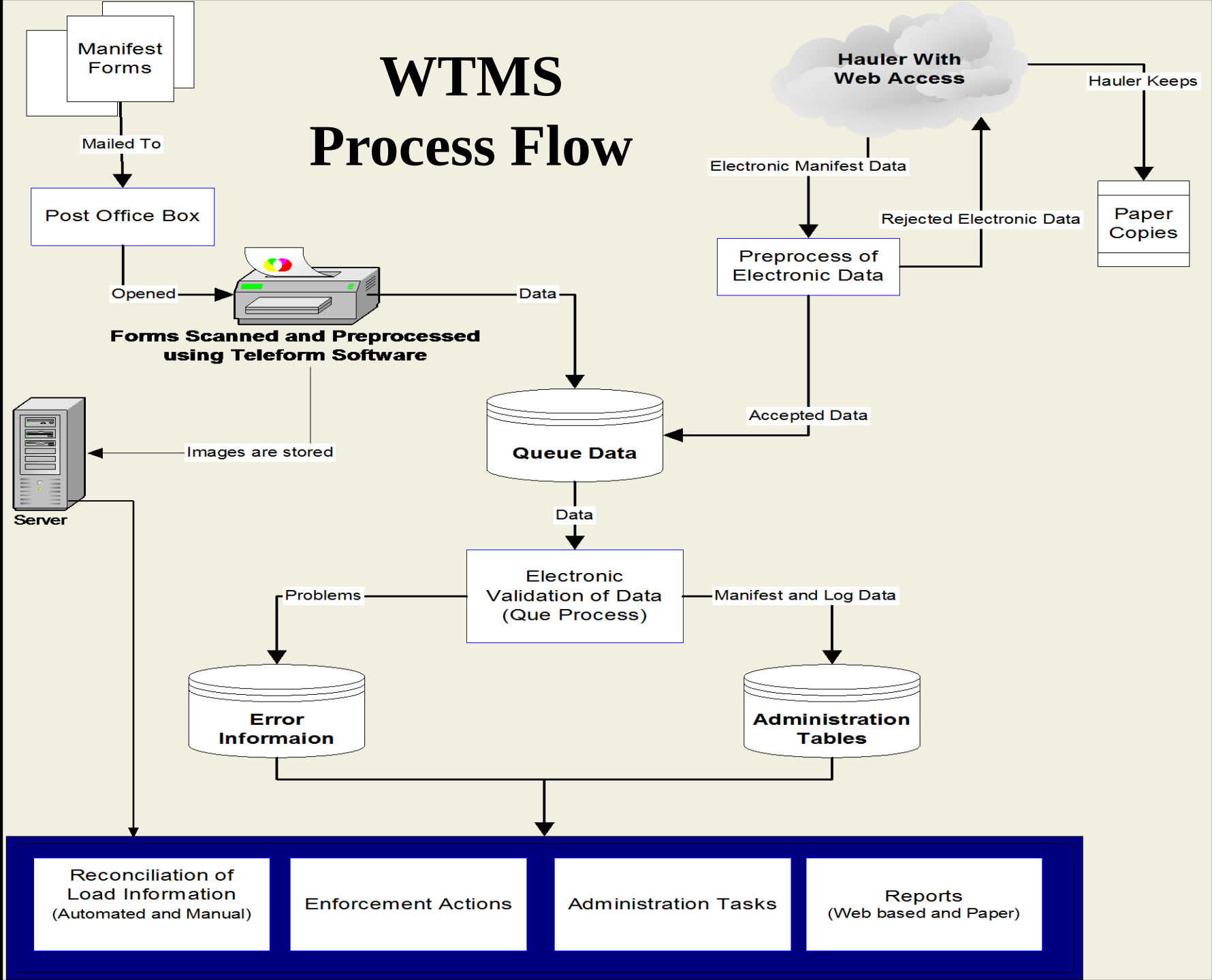
Below is a chart of when audits or enforcement actions may be triggered. It is clear that if one or more of the pieces is missing, the system will be able to detect it.

Generator: Receipt Form req'd	**Hauler:** Manifest Log req'd	**End-Use:** Receipt Form req'd	**Action to be Taken**	**Info Loss?**
Sent	Sent	Sent	OK – no action	None
Missing	Sent	Sent	**Contact**	**Recoverable**
Sent	**Missing**	Sent	**Contact**	**Recoverable**
Sent	Sent	**Missing**	**Contact**	**Recoverable**
Sent	**Missing**	**Missing**	**Audit**	**Yes**
Missing	Sent	**Missing**	**Audit**	**Recoverable**
Missing	**Missing**	Sent	**Audit**	**Yes**

II.d Scanning: System Design

- Allows for forms to be submitted **out of order**
- Allows for **partial submissions** (not all rec'd)
- **"Closes the loop" of accountability** for all parties by providing automated "audits"(examples):
  - **If Trip Log indicates N pickups and deliveries, then we should receive N Manifest Forms for this 'load'**
  - **Combined amount of tires picked up on a specific load should equal the amount of all tires delivered**
- **Incomplete or unreadable** forms (e.g., missing or incorrect program ID) - **flagged for audit** by staff

WTMS Process Flow



II.d Scanning: Prototype and Testing

- **Successful** Software and Equipment Evaluation
- Form Design – **Scantron Forms/OCR**
- Data Capture – **99% + accuracy**
- Imaging – .tif file format; **transferred Data / Image** to WTMS Database for later retrieval
- Scanning Hardware Operation – rated speed is **>50 pages-per-minute** (ppm)

II.e Data and System Design – Summary of Technical Approach

- **Form Design** – Simplify, increase accuracy, use ‘checksums’, continue design enhancements
- **High Speed Scanning** technology to handle high form submittal volumes.
- **Proof of Concept** for High Speed Scanning and Data Capture completed and documented.
- **Business Processes documented and refined. High level and detail level ERD’s and System Flows documented.**

II.e Data Design, and Business Processes & Workflow

Quick Walkthrough of …

- WTMS Entity Relationship Diagram's (ERD's)
- Manifest Processing Modules Flowcharts and Electronic Submittal Option

II.f Print Alternative and Electronic Data Transfer

- Some organizations want to be able to **<u>pre-print Manifest Form</u>** info … Solution?
  - Simple "Access" Database Program
  - Okidata impact printer testing
- Some organizations eager for **<u>Electronic Data Transfer</u>** … Solution?
  - Plan to evaluate Proof-of-Concept
  - Move up on the project schedule (earlier)

II.f Print Alternative and Electronic Data Transfer

- **Program Elements**
  - Pilot Project
  - Establish criteria for Hauler participants
  - Electronic information submitted in a format prescribed by CIWMB
  - Ensure auditability requirements
- **Benefits**
  - Potential for improved data integrity and timeliness
  - Reduced paper processing and mailing for Haulers
  - Reduced administrative overhead for CIWMB
  - Work within existing business processes where possible

II.g Communication Plan

- **Notification of regulated client community**
  - Haulers, Generators, End Use facility operators
  - Local Government, School Districts
  - Industry Associations
- **Regional Training Workshops**
  - Northern and Southern California venues
  - Training on WTMS process, training materials in English and Spanish.
  - Focused training as appropriate with special client community members (Tire Associations, New Car Dealers, Spanish speaking only.)

II.g Communication Plan

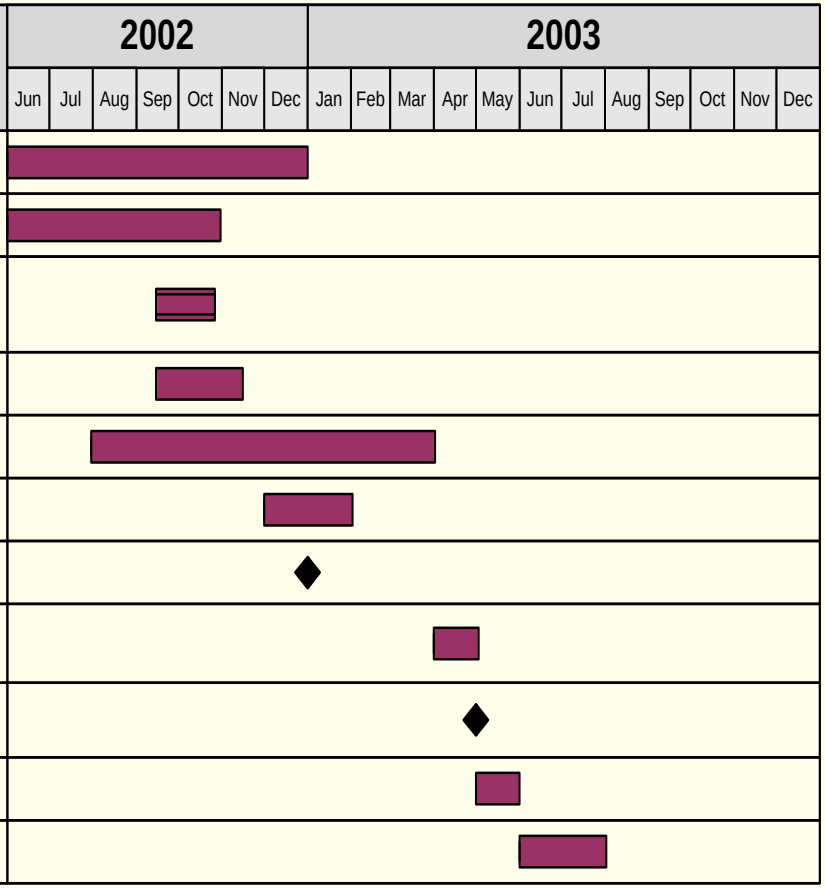
- **Training Materials and Information Resources**
  - Plasticized, graphical tri-fold instruction sheets (multilingual)
  - Ringed pocket sized instructions (multilingual)
  - Training Videos (requested by industry) in English and Spanish
  - CHP Law Enforcement Video

II.g Communication Plan

- **CIWMB Internet Website** (http://www.ciwmb.ca.gov/Tires/Manifest/default.htm)
  - Includes Project Status, Current Manifest Requirements, Proposed Manifest System
- **CIWMB BoardNet Site**
  - Internal Project Reporting
  - Project Planning Details – Diagrams, Structure
  - Various System Graphics and Presentations

III. WTMS Timeline

ID	Task	Start	End
1	Regulations Development	6/1/2002	12/31/2002
2	Application Analysis and Design	11/1/2001	10/30/2002
3	Form Printing (pending State budget)	9/15/2002	10/26/2002
4	Develop Training Materials	9/15/2002	11/15/2002
5	Application Development	11/1/2002	4/1/2003
6	Industry Training	12/1/2002	2/1/2003
7	Forms Implementation (ramp up)	1/1/2003	1/1/2003
8	Internal Testing (business and technical)	4/1/2003	5/2/2003
9	Electronic Data Transfer Implementation	5/1/2003	5/1/2003
10	External Testing	5/1/2003	5/31/2003
11	WTMS Transition to Tire Program	6/1/2003	8/1/2003

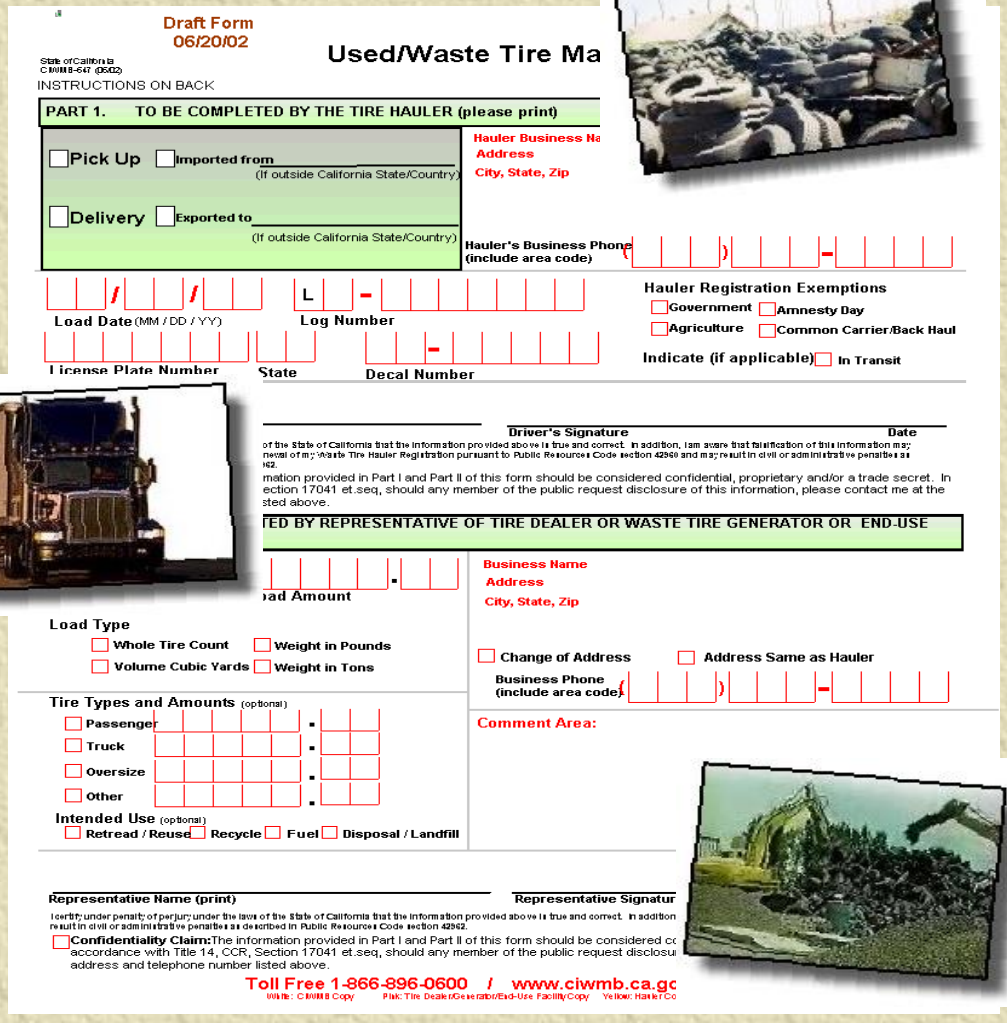


Waste Tire Manifest System

End of Presentation

Comments ?

Questions ?



Draft Form
06/20/02

Used/Waste Tire Ma

State of California
CIWMB-647 (8/02)

INSTRUCTIONS ON BACK

PART 1. TO BE COMPLETED BY THE TIRE HAULER (please print)

☐ Pick Up ☐ Imported from _____ (If outside California State/Country)

☐ Delivery ☐ Exported to _____ (If outside California State/Country)

Hauler Business Na
Address
City, State, Zip

Hauler's Business Phone (include area code) ( ) -

Load Date (MM / DD / YY) / /

Log Number L -

Hauler Registration Exemptions
☐ Government ☐ Amnesty Day
☐ Agriculture ☐ Common Carrier/Back Haul

Indicate (if applicable) ☐ In Transit

License Plate Number

State

Decal Number -

Driver's Signature

Date

of the State of California that the information provided above is true and correct. In addition, I am aware that falsification of this information may
newal of my Waste Tire Hauler Registration pursuant to Public Resources Code section 42960 and may result in civil or administrative penalties as
962.

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TED BY REPRESENTATIVE OF TIRE DEALER OR WASTE TIRE GENERATOR OR END-USE

ad Amount

Business Name
Address
City, State, Zip

Load Type
☐ Whole Tire Count ☐ Weight in Pounds
☐ Volume Cubic Yards ☐ Weight in Tons

☐ Change of Address ☐ Address Same as Hauler

Business Phone (include area code) ( ) -

Tire Types and Amounts (optional)
☐ Passenger
☐ Truck
☐ Oversize
☐ Other

Comment Area:

Intended Use (optional)
☐ Retread / Reuse ☐ Recycle ☐ Fuel ☐ Disposal / Landfill

Representative Name (print)

Representative Signatur

Identify under penalty of perjury under the laws of the State of California that the information provided above is true and correct. In addition
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White: CIWMB Copy Pink: Tire Dealer/Generator/End-Use Facility Copy Yellow: Hauler Co