Guidance
Best Management Practices (BMPs) for TxDOT Maintenance Activities

In 2022, the Environmental Affairs Division (ENV) completed a reevaluation of its 2011 environmental assessment for non-FHWA maintenance activities conducted by TxDOT. The reevaluation covered the following ten maintenance programs:

1) Bridge maintenance
2) Customer service
3) Debris and Spills
4) Drainage
5) Ferry maintenance
6) Maintenance enhancement
7) Pavement maintenance
8) Roadside appurtenances
9) Traffic pavement markings
10) Vegetation management

As part of the reevaluation, ENV subject matter experts developed an updated set of best management practices (BMPs) for maintenance activities, which is set forth below. TxDOT maintenance personnel and contractors should apply these BMPs as appropriate and to the extent practical to minimize the potential environmental impacts of TxDOT's maintenance activities. This list of BMPs is not intended to replace any TxDOT district-specific maintenance BMPs or protocols, which should continue to be applied in accordance with district management instructions. Additionally, professional judgment should be exercised in performing maintenance activities, and may require additional environmental precautions on a case-by-case basis. TxDOT maintenance personnel and contractors are encouraged to communicate as appropriate with district environmental staff regarding sensitive resources that may exist in the district that could be impacted by maintenance operations.

The BMPs are organized below in two major sections.

First, resource-specific BMPs that are generally applicable across all maintenance activities are listed. These BMPs could be applicable to a variety of different maintenance activities, and are sub-divided into the following resource areas: **(A)** Water and Wetlands, **(B)** Water Quality Pollution Control, **(C)** Erosion and Sediment Control, **(D)** Biology, **(E)** Hazardous Materials, **(F)** Archeology, and **(G)** Historic Resources.

Second, additional BMPs that are specific to particular types of maintenance activities are listed. These BMPs apply to the following types of maintenance activities: **(A)** Equipment Maintenance, **(B)** Bridges, **(C)** Deicing, **(D)** Sweeping, **(E)** Waste Disposal, **(F)** Pavement, and **(G)** Pavement Markings. For these types of maintenance activities, TxDOT maintenance personnel and contractors should follow both the resource-specific generally applicable across all maintenance activities, as well as the additional BMPs for the particular types of maintenance activities.

I. RESOURCE-SPECIFIC BMPS GENERALLY APPLICABLE ACROSS VARIOUS CATEGORIES OF MAINTENANCE ACTIVITIES

A. Water and Wetlands

1. When possible, avoid operating heavy machinery in wetlands,[1] streams, and waterbodies. If not possible, adhere to the listed BMPs or contact the Area Office to identify additional BMPs that are appropriate.

2. Identify any sensitive habitat/aquatic resource areas, including wetlands, streams, and waterbodies, found within the work area prior to beginning Maintenance Program activities, and take precautions to avoid impacts to such resources. Contact district environmental staff if impacts will occur in wetlands or streams as permits may be necessary for work.

3. Limit the operation of heavy machinery to paved areas, areas free of native vegetation, and areas with slopes that are less than 33 percent and consist of stable soils.

4. Place construction mats (e.g., timber mats, etc.) in wetlands, and construct temporary crossings in/over streams and waterbodies prior to performing maintenance activities. Temporary crossings should be constructed to maintain low flows.

5. Ensure timely inspection and removal of debris for culverts to continue to function effectively.

6. Avoid unnecessary soil disturbance and vegetation removal by only performing maintenance ditch cleaning in areas where ditch function is impaired.

7. When possible, debris removal by heavy equipment should occur with the heavy equipment being located outside the wetland, stream, or waterbody and must result in no more than incidental fallback of debris.

8. In general, clean, repair, or replace culverts and ditches, and conduct dredging, only during periods of low water flow, during dry weather, and not during intense rainfall events.

9. When feasible, begin dredge at fixed flow elevation points (e.g., culvert inlets/outlets, catch basin inlets, etc.).

10. When removing debris and sediment and stabilizing ditches, maintain existing form and function, re-establishing pre-existing contours and conditions. Limit ditch recontouring to the original ditch length, width, and height; do not increase capacity.

[1] The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. Executive Order 11990.

11. Store/dispose of removed materials at an appropriate site/stable location and in an appropriate manner above the bank line and as part of the local material disposal plan; do not allow removed material to enter wetlands, streams, or waterbodies.

12. Employ energy dissipaters if channelized flow is too strong for the surrounding environment, and ensure that they do not decrease capacity (if vegetation or rock-lined ditches reduces the ditch flow capacity, the road may be endangered).

13. Remove temporary conveyances completely as soon as the surrounding drainage area has been stabilized or at the completion of construction.

14. Where appropriate and practical, place sediment barriers in site-specific locations along wetlands, streams, and waterbodies; route swept material away from wetlands, streams, and waterbodies. Ensure sediment barriers are installed correctly depending on the product and manufacturers installation recommendations.

15. Slow sweeper and broom speed, and change the angle of the broom to prevent sweepings from leaving the road shoulders and entering a wetland, stream, or waterbody if the road is parallel to a wetland, stream, or waterbody that is less than 25 feet from the fog line.

16. Take special care to ensure debris and dirt from bridges and roadways do not end up in wetlands, streams, and waterbodies.

17. Prevent sand from entering any wetlands, streams, and waterbodies, and prioritize sand clean up near such areas.

18. Inspect the measure after every storm, and repair the dike, flow channel, and outlet, as necessary. Approximately once a week, inspect the measure and make repairs, if needed. Damages caused by construction traffic or other activity must be repaired before the end of each working day.

19. Comply with the requirements under the Texas Coastal Management Program (CMP) when disposing of or relocating dredged material. The CMP requires that dredging and the disposal and placement of dredged material shall avoid and minimize adverse effects to coastal waters, submerged lands, critical areas, coastal shore areas, and Gulf beaches to the greatest extent practicable. Dredging and dredged material disposal and placement must not cause or contribute to violation of any applicable surface water quality standards established under the CMP. Additional information about the CMP's Policies for Dredging and Dredged Material and Placement is available at 31 TAC §501.25.

20. Comply with regulations governing water quality when performing Ferry Maintenance Program activities.

21. Minimize adverse effects on water quality from dredging and dredged material disposal and placement by controlling the location and dimensions of the activity; by complying with applicable standards for sediment toxicity; by controlling the manner in which material is dispersed; and by adapting technology to the needs of each site.

22. When work is finalized, use native seed as first choice and non-native only when native seed is unavailable or as needed for establishing vegetation. Mulch ditches at the end of each work day. Monitor daily for subsequent erosion until area is stable. Repair as necessary.

23. Retain existing vegetation when at all possible, especially along the ditch slopes to maintain stability

B. Water Quality Pollution Control

24. Notify the immediate supervisor and the District MS4 Coordinator if illicit discharges into TxDOT ROW are observed. Follow TxDOT ENV illicit discharge detection and elimination guidelines.

25. Contain all chemical substances used for customer service maintenance, including paints, sealants, cleaners, de-icing agents, and sand until such substances are needed.

26. Provide secondary containment of storage tanks in all areas to prevent spills, leaks, or ruptures from entering nearby wetlands, streams, groundwater, or waterbodies.

27. Use only aquatic approved pesticides as indicated on the label of the product in or near aquatic resources (i.e., wetlands, streams, and waterbodies) when working near such environments. Discharges of any aquatic approved pesticide to any waters of the U.S. should be documented with a TCEQ self-certification form for level II operators under the pesticide general permit TXG870000.

28. Projects that meet the definition of “authorized non-stormwater discharges” under the Construction General Permit (CGP) must implement appropriate erosion, sediment, and pollution control measures.

C. Erosion and Sediment Control

29. Projects disturbing 1 acre or more and meeting the definition of “construction activity” in the Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit (CGP) TXR150000 require authorization under that permit and the implementation of appropriate erosion, sediment, and pollution control measures.

30. Projects that meet the definition of “routine maintenance” under the CGP do not require authorization. However, appropriate erosion, sediment, and pollution control BMPs must be used to prevent sediment from being transported off site.

31. When selecting erosion control products from the Erosion Control Approved Products List, use biodegradable/wildlife friendly (e.g., minimizes wildlife entrapment risks), when feasible.

32. Coordinate any erosion repair activities (response to and cleanup of erosion problems, not the erosive action itself), which cause significant changes in the topography or vegetation within the riparian management area with district environmental staff.

33. Use erosion control methods in a timely manner, including seeding and mulching specific areas with native seed as priority and non-native only as needed, installing silt fences, and installing other devices as appropriate. For more information about non-invasive species, see TxDOT's *Roadside Vegetation Management Manual* and *Landscape and Aesthetics Design Manual*.

34. Reference TxDOT Construction Stormwater Resources for additional information on erosion and sediment control practices.

35. Use BMPs such as rock filter dams, silt fences, and other acceptable techniques when the potential exists to have sediment or other polluting materials enter a Water of the State.

36. Control erosion on disturbed areas by using velocity dissipation BMPs such as vertical tracking or check dams.

37. Stabilize areas once work has temporarily or permanently ceased to avoid erosion and sediment discharge issues.

D. Biology

38. Train maintenance personnel to be aware that certain areas may have rare, threatened or endangered plant or animal species or their habitat and that these areas may have specific legal requirements. Consultation with USFWS or coordination with TPWD might be required in areas where imperiled species or habitats occur. If activities are to occur where imperiled species or habitat could be present, then contact district environmental staff to see if additional actions or precautions are needed.

39. Active burrows, nests or dens of mammals, reptiles, amphibians, and insects should be avoided to the extent practical. No live animals, including snakes, should be purposefully injured or killed. Animals should be given the opportunity to leave the work area. If presence of a live animal inhibits completion of the work, contact district environmental staff.

40. Vegetation disturbing activities should not destroy or otherwise cause the failure of active nests of bird species protected by the Migratory Bird Treaty Act. Coordinate with district environmental staff prior to brush or tree trimming or removal. Follow ENV guidance regarding birds on TxDOT infrastructure and vegetation clearing. https://ftp.txdot.gov/pub/txdot-info/env/toolkit/350-01-gui.pdf

41. Avoid bridge work when birds or bats are present. Contact district environmental staff if work is needed and birds or bats are present.

42. Limit vegetation removal to the minimum area necessary to complete the work.

43. Coordinate with district environmental staff before placing excess material to widen the shoulders or smooth out the slopes.

44. Coordinate with district environmental staff prior to grading and blading activities for wildfire management and control.

45. Contact district environmental staff if it is necessary to remove a beaver dam. Beaver dam removal must be handled by a permitted professional.

46. Sterilize equipment for tree trimming between trees in areas affected by surface transferable bacterial, viral, and fungal diseases.

47. Work in or near coastal waters could affect Essential Fish Habitat. Contact district environmental staff if work in these areas is necessary.

48. Work in any perennial water body (i.e., one that keeps full or flowing continuously throughout the year) likely could have an effect on imperiled aquatic species. Contact district environmental staff if work is necessary in these areas.

49. Equipment used in any perennial water body must be thoroughly cleaned, drained, and dried following TPWD recommendations to prevent spread of invasive aquatic organisms. See TPWD's "Clean, Drain, Dry Your Boat" instructions at https://tpwd.texas.gov/regulations/outdoor-annual/boating/clean-drain-dry-your-boat.

50. Place stockpiles, equipment storage areas, and other maintenance project-specific locations in previously disturbed areas to the extent practical.

E. Hazardous Materials

51. Train maintenance crews on how to handle hazardous chemicals if used, and encourage them to use them sparingly and only when absolutely necessary.

52. Ventilate facilities and use fans to create a cross draft when paints, cleaners, etc. are being used.

53. Wear personal protective equipment whenever handling a hazardous chemical to reduce exposure, which could cause acute or chronic effects.

54. Store materials such that rainfall will not cause any runoff (contaminated runoff could impact other areas on site, wetlands, or surface waters.) Store sweepings to minimize the potential for site impacts from road waste contaminants. Storage on an impermeable surface with leachate collection and/or protection from rainfall is preferable. Tarps may be used for cover, or berms or retention ponds may be used to contain runoff. Shelters may be constructed to contain stockpiled materials such as salt.

55. Comply with all Spill Control & Countermeasure (SPCC) Plan requirements for storage and containment of petroleum substances.

56. Store/dispose of removal materials at an appropriate site in an appropriate manner as part of the local material disposal plan. Removed material may be temporarily stored in stable locations to prevent the material from entering wetlands or waterways.

57. Do not handle any unknown substance that may be potentially hazardous. If a waste or surplus material is known to be hazardous, suspected of being hazardous or cannot be identified, notify the District Maintenance HazMat Manager immediately.

58. Maintain an emergency spill kit with all equipment that contains or transports chemicals that could potentially cause an environmental hazard. This includes but is not limited to herbicide trucks, herbicide trailers, and UTV's carrying herbicides or pesticides. Follow established department spill clean-up procedures.

F. Archeology

59. When maintenance activities turn up archeological evidence, such as arrowheads or pottery shards, take the following actions: (1) Stop work in the area where the artifacts were discovered. (2) Immediately notify your supervisor. (3) Follow your district's procedures for notifying management and the district environmental quality coordinator (DEQC) or district environmental coordinator (EC). (4) The DEQC/EC will then immediately notify ENV's Cultural Resource Management Section (CRM) staff at (512)416-2631/3001. (5) CRM staff will immediately notify the appropriate state agency of the discovery and arrange for any further actions.

60. When maintenance activities turn up possible human remains or unmarked graves, take the following steps: (1) Stop work in the area where the possible human remains or unmarked graves were discovered. Do not touch or remove any of the remains. (2) Immediately notify your supervisor. (3) Follow your district's procedures for notifying management and the district environmental quality coordinator (DEQC) or district environmental coordinator (EC). (4) The DEQC/EC will then immediately notify ENV's Cultural Resource Management Section (CRM) staff at (512)416-2631/3001 and also notifies local law enforcement. Possible human remains and unmarked graves should be regarded as a potential crime scene until law enforcement has determined that the site is not a crime scene under their jurisdiction. (5) CRM staff will immediately notify the appropriate state agency of the discovery and arrange for any further actions.

G. Historic Resources

61. Periodically review the list of all historic bridges in your responsible area and provide inhouse and contracted maintenance personnel responsible for implementing Maintenance Program activities with the list of historic bridges in their respective areas so that proper methods are used. The district environmental staff can provide a list of historic bridges.

62. In addition to bridges, other historic resources in TxDOT ROW can include historical markers, buildings next to sidewalks (including canopies/balconies), rest and picnic areas, and masonry (brick or stone) structures such as culverts or retaining walls.

63. Historical markers are state property. TxDOT can replace damaged elements (bronze plaques, seals, wreaths, stars) of granite centennial markers with replacement parts. District environmental staff can provide maintenance personnel with the appropriate order forms.

64. Use the least aggressive methods for cleaning historic resources, especially historic markers.

65. Exercise caution when performing maintenance activities near historical markers.

66. Before removing, storing, or relocating any historical markers, coordinate with the district environmental staff. The staff must prepare paperwork and receive approval from the Texas Historical Commission for the relocation.

67. Coordinate any major maintenance activities on history resources (especially historic bridges) with the district environmental staff.

68. Repair rather than remove historic features whenever possible. Consult with the district environmental staff if planning to conduct repairs or removal.

69. Consult with district environmental staff for plans and guidance associated with ADA-compliant alterations to historic picnic or rest areas.

70. Unless there is an immediate safety concern, do not permanently close a picnic or rest area without conferring with the district environmental staff and the Maintenance Operations Manual.

II. BMPS SPECIFIC TO PARTICULAR TYPES OF MAINTENANCE ACTIVITIES

A. Equipment Maintenance

71. Properly maintain all equipment used for Maintenance Program activities to optimize fuel and operating efficiency and to ensure worker safety. Dispose of or recycle all fluids such as motor oil, engine coolant, and transmission fluid in properly labeled containers.

72. Use as little solvent as possible to lubricate, not clean, the surfaces and moving parts of the paver.

73. Spray solvent on the equipment rather than pour it, during lubrication.

74. Prevent solvent from puddling under the equipment. If puddles form, they could wash into a stream during a rainfall. Use absorbent pads to catch any excess during application.

75. If absorbent pads are used, do not leave them on the ground beneath equipment.

76. Properly dispose of pads contaminated with a “listed hazardous waste solvent” as hazardous waste.

77. Store pads in closed containers between uses and before disposal.

78. Carry a spill kit, Safety Data Sheets (SDS) and emergency phone numbers for use in the event of a significant spill in vehicles carrying fuel and other maintenance fluids.

79. Train drivers how to handle and report a spill.

80. When cleaning tools, servicing equipment or doing routine maintenance, use care to avoid spills, leaks and drips of equipment and cleaning fluids.

81. Maintain equipment to prevent leaks of petroleum products.

82. Clean up tack over-spray during construction.

B. Bridges

83. Properly collect, store, and dispose of all wastes generated during Bridge Program Maintenance activities in approved landfills.

84. Contain all chemical substances used for bridge maintenance, including paints, sealants, lubricants and epoxies. Use collection mats, such as drop cloths, filter mats, and containment curtains to prevent chemical substances from entering the environment.

85. Identify all bridge projects with the potential to disturb asbestos-containing materials or lead-containing coatings. Test and abate as necessary prior to performing the work in accordance with TxDOT asbestos and lead guidance documents, specifications, and regulatory requirements.

C. Deicing

86. Store de-icing agents in covered areas on impermeable surfaces to prevent leaching of these agents into underlying soils and groundwater and to prevent agents from entering surface waters via runoff.

87. Minimize use of salt by reducing salt-to-sand ratio.

88. Plow snow in areas that allow vegetation to filter and contain sand.

89. Treat sand clean-up as part of the emergency: remove sand as a priority in order to remove sediments.

90. Prioritize sand clean-up efforts to aquatic habitat areas to minimize impacts.

91. Prioritize sand clean-up in areas without sediment collection systems.

92. Ensure equipment is operating properly so salt is applied accurately to road surfaces and prevents over-spray.

93. When possible, remove the bulk of snow and ice prior to the application of de-icing agents, as it reduces the need for salt application.

94. Develop a salt management plan to minimize salt usage and salt entry into the environment surrounding roads and maintenance facilities.

95. Minimize the release of salty snowmelt waters from snow storage piles to soils and groundwater by directing runoff to areas less sensitive to impact.

96. Collected and screen and size winter road sand for reuse. If sand washing is required to remove excess fines, minimize site impacts, collect the fine particles, and prevent runoff. (Pretreatment by settling or flocculation then permitted discharge to sanitary sewer is a sound practice).

D. Sweeping

97. Recycle sweeping materials as practicable and appropriate.

98. Where feasible, schedule sweeping during damp weather, to minimize dust production.

99. Where appropriate and practical, place sediment barriers in site-specific locations along stream routes or direct drainage routes, route sweeping material away from watercourses.

100. Free clogged scuppers using a steel rod, then sweep material away. A scupper is an opening in the side walls or parapet of a bridge, for purposes of draining water. They are usually placed at or near ground level and allow rain or liquids to flow off the side of the bridge, instead of pooling on the deck.

101. Use water (as needed) to reduce dust during sweeping.

102. Where feasible, coordinate crews to follow sweeping/flushing with bridge drainage cleaning.

103. Sweep and vacuum to remove de-icing abrasives, material from small slides, litter and debris. Sweeping and vacuuming may be implemented anywhere sediment is tracked from offroad maintenance activity sites onto public or private paved roads typically at the points of egress.

104. Compost sweeper loads full of fallen leaves and other organic materials rather than use classic waste disposal techniques when possible.

105. Do not sweep up any unknown substance that may be potentially hazardous. If a substance is known to be hazardous, suspected of being hazardous or cannot be identified, notify the District Maintenance HazMat Manager immediately.

106. Adjust brooms to maximize the efficiency of sweeping operations.

107. Do not load hoppers with street sweepings beyond their capacity.

108. Screen regular sweepings, disposing trash and litter only at TCEQ-permitted landfills.

109. Sidecast minimally contaminated sweepings onto non-ditched shoulders if these roadsides are not adjacent to surface waters, wetlands, or stormwater management systems with discharge to surface waters, wetlands or the subsurface.

110. Slow sweeper and broom speed and change the angle of the broom to prevent sweepings from leaving the roadway shoulders and entering the stream if the road is parallel to a water body that is less than 25 feet from the fog line.

E. Waste Disposal

111. Store/dispose of removal materials at an appropriate site in an appropriate manner. Removed material may be temporarily stored in stable locations to prevent the material from entering wetlands or waterways.

112. Dispose of waste to a landfill or approved site in accordance with local regulations and solid waste management best management practices. “Clean” materials should be reincorporated back into the program for future reuse.

113. Obtain a site-specific permit if composting over 25 tons per year.

114. Screen materials collected from areas known to have low impacts from road waste contaminants for trash and reuse it as low grade fill in DOT-owned and controlled areas.

115. During storage and processing, fines should not be allowed to become airborne.

116. Use general good housekeeping practices and do not leave waste behind on the job site.

F. Pavement

117. Do not wash out concrete trucks into storm drains, open ditches, streets or streams.

118. Do not allow slurry residue to enter storm drains or watercourses.

119. Use care to avoid spills, leaks and drips of equipment and cleaning fluids when cleaning tools, servicing equipment or doing routine maintenance.

120. Construct temporary concrete washout facilities with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.

121. Use plastic lining material with a minimum of 10 mil polyethylene and make sure it is free of holes, tears or other defects that would compromise the impermeability of the material.

122. Clean washout facilities or construct new facilities once the washout is 75% full.

123. Contain liquid wastes in a controlled area, such as a holding pit, sediment basin, roll-off bin, or portable tank.

124. Ensure that containment devices are structurally sound, leak free and of sufficient quantity or volume to contain all liquid wastes.

125. Monitor asphalt mix temperature to ensure conformance with specifications.

126. Maintain the lowest possible temperature of asphalt during paving application.

127. Consider location of other vehicles and equipment. To the extent feasible, control engine emissions by limiting idling and distancing other vehicles/equipment from paver operations.

128. Minimize exposure to asphalt fumes for workers present but not directly involved with paving maintenance.

129. Frequently check paver ventilation systems designed to remove asphalt fumes from the screed to ensure proper operation.

130. Exhaust tail pipe and ventilation stacks above the height of the paver operator.

131. Consider unfavorable weather conditions as a potential problem.

132. Consult with Regional Safety Representative regarding the need for personal protective equipment.

133. Evaluate safety conditions for workers with asphalt fume-related symptoms and, if necessary, contact the Regional Safety Representative regarding the need to modify operations.

134. At the end of the work shift, remove all the excess asphalt from the paver that you can, using pry bars and other hand tools.

135. Execute the proper course of action with asphalt removed from the paver. Either incorporate it into the project, scarify and blend it into the stabilized shoulder if practical, or pick it up and haul it back to the plant.

136. Do not dispose of asphalt over a hill, in a body of water, or other non-permitted disposal area. Only dispose of asphalt in permitted disposal areas such as tanks, being sure to not mix materials, or through a contracted disposal company.

137. Park the paver in an area that is not near a stream or a wetland or a ditch that flows directly into a nearby stream or wetland. If you cannot park the paver away from these areas, use absorbent pads under the paver to catch drips of solvent.

138. Residual emulsified asphalt materials in a distributor can be applied to roadway edges and front slopes in a light application for stabilization and erosion control per Items 300 and 314. Do not cut asphalt with diesel or other solvents when used for this application.

G. Pavement markings

139. Schedule pavement marking activities for dry weather. Do not conduct painting or traffic marking activities during rain events.

140. Use water-based paints in accordance with TxDOT Standard Specifications Item 666, “Retroreflectorized Pavement Markings,” and Department Material Specification 8200, “Traffic Paint.”

141. Develop paint handling procedures for proper use, storage, and disposal of paints.

142. Transfer and load paint and hot thermoplastic away from storm drain inlets.

143. Provide drop cloths and drip pans in paint mixing areas.

144. Properly maintain application equipment.

145. Street sweep thermoplastic grindings. Yellow thermoplastic grindings may require special handling as they may contain lead.

146. Properly dispose of all paints containing lead or tributyltin, which are considered a hazardous waste.

147. Properly store leftover paints if they are to be kept for the next job or dispose of properly.

148. Require all personnel to complete a safety training program that meets state requirements prior to removing yellow thermoplastic and yellow painted traffic stripe and pavement marking.

149. Immediately contain and collect all removed residue, including dust, where grinding or other approved methods are used to remove yellow thermoplastic and yellow painted traffic stripe and pavement markings. Sweeping equipment should not be used. Collection should be by a high efficiency particulate air (HEPA) filter equipped vacuum attachment operated concurrently with the removal operations or other equally effective approved methods.

150. Store removed yellow thermoplastic and yellow painted traffic stripe and pavement marking residue in labeled covered containers, conforming to state provisions. The containers should be a type approved by the United States DOT for the transportation and temporary storage of the removed residue. The containers should be handled so that no spillage will occur. The containers should be stored in a secured enclosure at a location within the project limits until disposal.