The selection of the most effective BMPs will be based on site-specific considerations such as: facility size, climate, geographic location, geology/hydrology and the environmental setting of each facility, and volume and type of discharge generated. Each facility will be unique in that the source, type and volume of contaminated storm water discharges will differ. In addition, the fate and transport of pollutants in these discharges will vary. EPA believes that the management practices discussed herein are well suited mechanisms to prevent or control the contamination of storm water discharges associated with facilities in this category.

Two types of BMPs which may be implemented to prevent, reduce or eliminate pollutants in storm water discharges are those which minimize exposure (e.g., covering, curbing, or diking) and treatment type BMPs which are used to reduce or remove pollutants in storm water discharges (e.g., oil/water separators, sediment basins, or detention ponds). EPA believes exposure minimization is an effective practice for reducing pollutants in storm water discharges from oil and gas facilities. Exposure minimization practices lessen the potential for storm water to come in contact with pollutants. These methods are often uncomplicated and inexpensive. They can be easy to implement and require little or no maintenance. EPA also believes that in some instances more resource intensive treatment type BMPs are appropriate to reduce pollutants such as suspended solids and oil/grease in storm water discharges associated with oil and gas facilities. Though these BMPs are somewhat more resource intensive, they can be effective in reducing pollutant loads and may be necessary depending on the type of discharge, types and concentrations of contaminants, and volume of flow.

The types of BMPs used may depend upon the methods of waste management utilized at a facility. Waste management and disposal practices at oil and gas facilities may vary significantly. For example, techniques for disposal of produced water and associated wastes include the following: landfarming/spreading (spreading wastes on land surfaces to stimulate biological degradation); backfilling (storing wastes in a pit and then covering with dirt or other materials); evaporation (in more arid parts of the country, liquid wastes are left exposed and eventually evaporate or percolate into the ground); discharging wastes (sometimes treated) to waters of the United States (NPDES permits are required for such discharges); injection (injecting wastes back into the ground for disposal); and offsite disposal (wastes are taken offsite to a commercial facility for disposal).

The pollutants of concern and the BMPs employed at an oil and gas facility depend upon which, if any, of the disposal techniques listed above are utilized. Where wastes are used for onsite road application, for example, all pollutant constituents of that waste need to be considered a potential contributor to contaminated storm water discharges. In addition, the areas at the facility where road application occurs must also be considered when BMPs are being implemented. In contrast, if all waste is taken to an offsite disposal facility, the waste will most likely not affect the storm water discharges and the areas of concern will not be expanded.

Table I–3 lists some BMPs which may be effective in limiting the amount of pollutants in storm water discharges from oil and gas facilities. The BMPs listed are not necessarily required to be implemented. Rather, BMPs should be chosen based on the specific nature of the storm water discharges at each oil and gas facility and implemented as appropriate. Some of these BMPs involve reducing the amount of waste produced and stored onsite which can potentially contaminate storm water. Based on part 1 information, several of the BMPs suggested are already in place at many of the facilities. Part 1 submittals indicate that diking or other types of diversion occur at approximately 57 percent of the sampling facilities. Thirty percent of the sampling facilities noted that they use some form of covering as a BMP, and catch basins are in place at 12 percent of the sampling facilities. In addition, 11 percent of the facilities designated as samplers in part 1 information reported they had a Spill Prevention Control and Countermeasure Plan in place, and 16 percent had a material management plan.

## TABLE I-3.—SUGGESTED BMPs FOR OIL AND GAS FACILITIES

## Suggested BMPs

Utilize diking and other forms of containment and diversion around storage tanks, drums of oil, acid, production chemicals, and liquids, reserve pits, and impoundments.

Use diking and other forms of containment and diversion around material handling and processing areas.

Use porous pads under drum and tank storage areas.

Use covers and/or lining for waste reserve and sludge pits to avoid overflows and leaks.

Use drip pans, catch basins, or liners during handling of materials such as tank bottoms.

Reinject or treat produced water instead of discharging it.

Limit the amount of land disturbed during construction of access roads and facilities.

Employ spill plans for pipelines, tanks, drums, etc.

Recycle oily wastes, drilling fluids and other materials onsite, or dispose of properly.

Take wastes offsite to be disposed of instead of burying them.

Use oil water separators.

## 4. Special Conditions

There are no additional requirements beyond those described in Part VI.B. of this fact sheet.

## Storm Water Pollution Prevention Plan Requirements

a. Contents of the Plan. Specific requirements for the pollution prevention plan for oil and gas extraction facilities are described below.

These requirements must be implemented in addition to the common prevention plan provisions discussed in Section VI.C. of this fact sheet.

(1) Description of Potential Pollutant Sources. Facilities under this section cover a broad range of oil field activities and service industries.

Drilling sites have large disturbed areas which will contribute additional sediments and suspended solids to the storm water runoff. Well drilling