Attachment 13 – Strmrespin

The following summary is from the City of Fresno's and the Fresno Metropolitan Flood Control District's current NPDES stormwater permit (SWRCB Order 5-01-048, NPDES No. CA0083500) Fresno-Clovis Storm Water Management Plan.

This attachment includes the introduction summary of the plan along with excerpts of the plan's organization and content.

INTRODUCTION 1.0

This document presents the revised Storm Water Quality Management Plan (plan) submitted as part of the renewal application package for the National Pollutant Discharge Elimination System (NPDES) Municipal Storm Water Permit Order Number 94-244 (storm water permit). The initial permit was issued to the Fresno Metropolitan Flood Control District (District), the cities of Fresno and Clovis, the County of Fresno (County), the California State University at Fresno (CSUF), and California Department of Transportation (Caltrans) by the Central Valley Regional Water Quality Control Board (Regional Board) on September 16, 1994. The plan represents the five-year management strategy for controlling the discharge of pollutants to the "maximum extent practicable" in storm water runoff from the Fresno-Clovis metropolitan area during the second NPDES storm water permit term.

1.1 BACKGROUND

The 1987 Federal Clean Water Act amendments created section 402(p) of the Act that mandated permits under the federal NPDES permitting system for discharges of storm water from specified activities. Final federal storm water regulations were promulgated in November 1990 and identified the Fresno-Clovis metropolitan area as a medium municipality required to be covered by a storm water permit.

In January 1992, six agencies in the Fresno-Clovis metropolitan area, the District, Fresno, Clovis, the County, CSUF and Caltrans joined together to file the application. Part I of the application was submitted to the Regional Board in May 1992, and Part II was submitted in May 1993.

Part II of the application package included the original Storm Water Quality Management Plan that provided the five-year strategy of controlling pollutants in storm water discharges from the permitted area. To ensure the plan was developed in compliance with federal storm water regulations and with the storm water permit's discharge standard of reducing pollutants in urban runoff to the maximum extent practicable, three advisory committees were formed to provide assistance and guidance during plan development: a Technical Advisory Committee and two subcommittees in Construction and Development, and Public Involvement and Education.

The initial NPDES storm water permit, Order No. 94-244, will expire on September 1, 1999. An application to renew the permit is due to the Regional Board by March 1, 1999. A revised plan is required to be submitted with the application package. The revised plan will provide the five-year strategic plan for reducing the discharge of pollutants in urban runoff over the next permit term.

The Program Coordinating Committee (PCC), which had evolved from the earlier Technical Advisory Committee, participated in a series of meetings from June through November 1998, and provided guidance in the development of the revised plan. In addition to securing input from the PCC, an assessment of the effectiveness of the first five-year plan was conducted to meet the conditions of the federal storm water regulations, Order No. 94-244, and the intent of the Clean Water Act. The assessment helped to identify elements of the plan that needed additional attention, or tasks to improve the effectiveness or better focus the activities. A report summarizing the assessment is included in Appendix C of this document.

In short, the assessment found that the first five-year program was effective and recommended implementation of all major components of the plan to continue with some revisions during the next permit term. Where possible, tasks were developed to focus on prevalent pollutants or sources to enhance pollutant reduction and provide increased environmental benefits. A discussion of the prevalent pollutants and sources is provided in paragraph 1.6 of this section.

1.2 THE PERMIT AREA

A vicinity map that generally illustrates the size and location of Fresno County, the cities of Fresno and Clovis, and the District is shown in Figure 1-1. The permit area is shown in Figure 1-2 and is defined by the District's Storm Drainage and Flood Control Master Plan urban drainage area boundaries and the County's Copper-Friant Study Area that lies adjacent to the District's northern boundary between the San Joaquin River and the Friant-Kern Canal. The

permit area will be modified to include future urban drainage service areas established by the participating agencies during the next permit term.

The permit area encompasses the cities of Fresno and Clovis and their spheres of influence. The Copper-Friant Study Area, an area adjacent to the San Joaquin River which is primarily designated for agricultural land uses and is being evaluated by the County as a potential area for more intensive development, is included due to its potential to influence river water quality. Also located within the permit area are CSUF and state highway systems operated by Caltrans. The permit area presently encompasses 135,153 acres.

1.3 PLAN ORGANIZATION

The plan is organized into six sections (Figure 1-3):

Section 1.0 of the plan provides an introduction to the plan and provides background information relevant to the development of the plan.

Section 2.0 provides a summary of how the plan complies with the storm water regulations.

Section 3.0 provides six best management practices (BMPs) control programs developed to address urban storm water pollution. The section is broken into seven subsections. The first subsection provides an introduction and background to the BMP development process. Following the introduction are the BMP control programs. Within each BMP control program is an introduction followed by the BMPs, projected five-year implementation schedules, and budget estimates. Each BMP section lists the measurable goals and subtasks to be conducted to implement and assess the BMP.

Section 4.0 describes the legal authorities and enforcement capabilities of the District and its co-permittees to develop, implement and enforce the plan. At the end of the program description are measurable goals to be conducted to ensure adequate legal authorities are maintained throughout the permit term.

Section 5.0 provides measurable goals for source identification and monitoring to be conducted by the District throughout the permit term. Included is a projected five-year implementation schedule and budget estimate.

Section 6.0 provides a summary of the roles and responsibilities of each of the participating agencies for plan implementation, describes funding, and summarizes the plan budget.

[Three of the sections, Sections 3.0, 4.0 and 5.0, contain measurable goals and assessment tasks. Measurable goals are tasks that describe the activities to be conducted by the participating agencies to develop and implement the plan. Measurable goals may also describe more specific subtasks. Assessment tasks are tasks performed to assist in determining the status of plan implementation and effectiveness of the plan in reducing the discharge of pollutants in urban storm water runoff. A diagram of how these three elements were developed is provided in Figure 1-4].

1.4 GOALS AND OBJECTIVES OF THE PLAN

The initial plan established goals and objectives for storm water quality management. These goals and objectives remain the same.

Goal of the Plan

To protect from degradation by urban runoff the resources and beneficial uses prioritized below:

Regional Groundwater Aquifer - municipal, industrial and agricultural water supply.

San Joaquin River and Tributary Streams - wetland, riparian, and in -stream ecosystems; recreation; municipal, industrial, and agricultural water supply; and groundwater recharge.

District Retention Basins - storm drainage and flood control, recreation, groundwater recharge, and incidental wildlife habitat.

Fresno Irrigation District Canals - fresh water conveyance for municipal, agricultural, and habitat uses, and storm drainage and flood control.

Artificial Lakes - aesthetics and recreation, aquatic resources, and storm drainage and flood control.

Objectives of the Plan

To meet the Goal of the plan, the following objectives were established.

1. To identify those pollutants in urban runoff that pose significant threat to these resources and beneficial uses.

2. To identify and control those sources of pollutants which pose the greatest threat to these resources and beneficial uses.

3. To comply with the federal NPDES mandate to eliminate or control, to the maximum extent practicable, the discharge of pollutants from urban runoff associated with the metropolitan storm drainage system.

4. To develop a cost-effective program which focuses on preventing the pollution of urban storm water.

5. To seek cost-effective alternative solutions where prevention is not a practical solution for a significant problem.

6. To cooperate with other local environmental regulatory programs to ensure a coordinated effort to control pollutants of common concern and to facilitate implementation of control measures.

Best Management Practice Objectives

To ensure the goal and objectives of the plan are achieved, each BMP includes its own objectives, which are:

Public Involvement and Participation Program

To educate the public to better understand and participate in the control of urban runoff pollution, and to solicit support for the program.

Illicit Discharge Program

To eliminate prohibited non-storm water discharges, including those associated with illicit connections and illegally dumped materials, to the municipal storm drain system.

Structural Controls Program

To ensure that the District's practice of building and utilizing retention basins for storm water management protects receiving waters from impacts related to storm water quality.

Operations and Maintenance Program

To evaluate and modify where necessary existing maintenance practices for the District's storm drain system to enhance pollutant removal; and to improve other public maintenance practices to minimize associated storm water pollution.

Construction and Development Program

To control storm water pollution originating from land development, both during and after construction.

Commercial and Industrial Program

To educate businesses and industries and monitor their efforts to reduce storm water pollution in site runoff.

1.5 PARTICIPATING AGENCIES

The revised plan was developed and will be implemented by the same six agencies named as co-permittees in the storm water permit. The rationale for the participation of each of these agencies in the Program is as follows:

- The District is the primary owner/operator of the municipal separate storm drainage system that serves the urbanized portion of the permit area;
- Fresno, Clovis, and the County control land use and development in the metropolitan area that drains to the District's system. The federal storm water regulations intended for agencies with land use authorities to be named as co-permittees to storm water permits to ensure adequate controls over storm water runoff can be effectively implemented; and
- CSUF and Caltrans own and operate storm drainage conveyance systems located within the permit area and are required to obtain storm water permits. The federal storm water regulations allow for storm water permits to be written on a drainage area-wide basis. Area-wide permits allow all owners and operators of municipal separate storm sewer systems to be named as co-permittees to one permit as in the case of the Fresno-Clovis storm water permit.

  Caltrans is currently seeking a separate storm water permit from the State of California. Caltrans will continue to participate and comply with the requirements of the Fresno-Clovis permit and plan until such time a separate permit is adopted by the State. At that time the plan will no longer apply to Caltrans.

1.6 POLLUTANT AND SOURCE PRIORITIZATION

During the first permit term, a study was conducted to identify and prioritize storm water pollutant sources (Source Study). The study focused on commercial and industrial sources, and general categories of pollutants. The results were used as a factor in selecting and prioritizing tasks identified in the original plan.

The issue of pollutants in municipal storm water discharges and their sources were revisited as part of the re-application process. A review was conducted of other municipal storm water monitoring programs to determine pollutants and sources commonly associated with municipal storm water runoff. The review helped to focus BMPs and tasks on addressing specific pollutants and sources prevalent in urban runoff. A brief discussion of the review follows.

Pollutants in Storm Water Runoff from Urbanized Areas

Over 90 percent of storm water runoff in the Fresno-Clovis metropolitan drainage area is contained in a series of retention basins and not discharged to receiving waters. Therefore, in the Source Study conducted under the original plan, pollutants were identified as a concern for the storm water program based on the ability for the pollutants to: 1) impact groundwater and surface waters, 2) be treated by settling in the basins, and 3) accumulate in basin sediments. As described below, the review conducted during the re-application process used this information in addition to other data to identify potential storm water pollutants that will be specifically addressed by the revised plan.

Storm water monitoring data and reports from a number of permitted municipalities in California (including Fresno-Clovis data) and around the nation were reviewed and evaluated to establish a list of pollutants that are prevalent (pollutants that meet or exceed established factors) and common in urban storm water runoff. A number of factors were used to establish a pollutant as prevalent; the consistent factor in all determinations was the ability of a pollutant concentration to exceed an established water quality criterion. Unlike the approach described above, this approach placed the focus on surface water.

Pollutants identified as prevalent were further evaluated to determine if they were common among the municipal storm water monitoring programs. A pollutant was considered *common* if over 50% of the storm water monitoring reports identified the pollutant as prevalent.

A pollutant was then further evaluated for its significance to the Program using the following factors:

- Does the pollutant have the potential to exceed water quality standards after passing through storm water basins and being discharged to a surface water?
- Does the pollutant have the potential to migrate to groundwater?
- Does the pollutant have the potential to accumulate in sediment?
- Is there an established Water Quality Criterion for the pollutant?
- Is there an established Drinking Water Standard for the pollutant?

Using the above approach, addressing the following pollutants was identified as a high priority for the plan.

- Heavy Metals: chromium, copper, lead, zinc and nickel
- Organic Pollutants: aromatic petroleum hydrocarbons (PAHs), diazinon and chlorinated pesticides
- Nitrates, total suspended solids and pathogens

Sources of Urban Storm Water Runoff Pollutants

Once the high priority pollutants were established, the sources of these pollutants were investigated. In the Source Study conducted under the original plan, only commercial and industrial sources were evaluated. These sources were categorized as high priority if: 1) the sources were not adequately addressed under another regulatory program, 2) an environmental program or other agency had identified the source as a frequent and common problem for experienced field staff, and/or 3) there was a relatively large number of a particular type of source or business in the Fresno-Clovis area. The review conducted as part of the re-application process expanded the original Source Study's scope to evaluate all potential common sources.

To establish a list of the potential sources, municipal monitoring reports were consulted as well as other technical documents and manuals and the Source Study. Common sources were identified using two factors: 1) over 50% of the municipal monitoring programs reviewed had

identified or referenced the activity as a potential source of the high priority pollutant, and 2) the source can be addressed by the plan (i.e., the plan can directly or indirectly affect the source). Based on this, possible common sources of the high priority pollutants for the Fresno-Clovis metropolitan area were found to be:

- Automobile related activities including tailpipe emissions, spills and leaks from automobile operation and maintenance activities, and service and maintenance activities.
- Electrical and electronic components during manufacturing and exposure of finished products to the environment.
- Mechanical products, such as machinery and equipment exposed to the environment.
- The manufacturing, handling, storage, use and disposal of organic chemicals.
- The manufacturing, handling, storage, use, and disposal of pesticides and fertilizers.
- The manufacturing and use of timber products.
- Electroplating and metal finishing activities and the exposure of finished equipment exposed to the environment.
- Scrap metal industries.
- Emissions from the combustion of organic material and fossil fuels.
- Erosion from construction sites and natural sources.
- Use and disposal practices for paint.

The above high priority pollutants and associated sources were used in the development of the revised plan as a factor in selecting measurable goals and subtasks to be conducted during the next permit term (see Section 3.0). The identified sources may later be prioritized as before.

2.0

COMPLIANCE WITH FEDERAL REGULATIONS

This section summarizes how the revised plan complies and varies with the NPDES federal storm water Phase I regulations and how it will comply with the proposed Phase II storm water regulations.

2.1 PHASE I STORM WATER REGULATIONS

U.S. EPA implemented the storm water regulations in two phases. The co-permittees complied with the Phase I storm water regulations that were published in November 1990 by developing the plan and implementing it in accordance with the NPDES municipal storm water permit, Order No. 94-244 issued by the Regional Board.

2.2 PHASE II STORM WATER REGULATIONS

In January 1998, the U.S. EPA published proposed Phase II storm water regulations. Final regulations are scheduled to be published in March 1999. As NPDES permittees, the agencies will need to comply with the revised storm water regulations as they go into effect.

The permit re-application is due to the Regional Board by March 1, 1999. Revisions to the plan will be made prior to the final Phase II regulations being published. While it cannot be guaranteed the plan will meet all the final Phase II requirements, significant changes between the proposed and final regulations are not anticipated.

The plan meets all proposed Phase II requirements. A comparison of the Phase II requirements and the revised plan is shown in Table 2A.

Additionally, provisions are included to ensure that the plan can be adequately revised, as needed or required, to address any other Phase II requirements.

4.0

LEGAL AUTHORITY AND ENFORCEMENT ELEMENT

4.1 INTRODUCTION

This element describes the legal authorities developed and adopted through the original plan to comply with requirements established in the Fresno-Clovis NPDES storm water permit, Order No. 94-244, and the federal storm water regulations.

The federal Clean Water Act and storm water regulations require municipalities covered by a NPDES storm water permit to possess adequate legal authority to:

- “Effectively prohibit” non-storm water discharges to the storm drain system, and
- Require controls to reduce the discharge of pollutants in storm water to the “maximum extent practicable.”

To comply with these requirements, a master Storm Water Quality and Discharge Control Ordinance (Ordinance) was developed and adopted with only minor variations by the District, cities of Fresno and Clovis and the County of Fresno (hereafter referred to as the participating agencies). To facilitate implementing the Ordinance, a model Memorandum of Understanding (MOU) was developed that identified the responsibilities of each participating agency in carrying out the requirements of the Ordinance. This section describes both of these documents in greater detail.

4.2 STORM WATER QUALITY AND DISCHARGE CONTROL ORDINANCE

The District developed the master Ordinance that was adopted by the participating agencies during the first permit term. It is a uniform ordinance that ensures fair, consistent enforcement of storm water quality controls throughout the permitted area. Adoption by the County also facilitates District Attorney involvement when absolutely necessary to impose penalties or effect other remedies.

In accordance with federal requirements, the Ordinance prohibits:

- *Illicit Discharges* Any direct or in-direct non-storm water discharge to the storm drain system, except as specifically exempted by the NPDES storm water permit.
- *Illicit Connections* Any drain that conveys illicit discharges and undocumented drains that are connected to the storm drain system. This section of the Ordinance supplements existing legal authorities provided in existing codes.
- *Waste Disposal in Streets, Gutters, Storm Drains and Ponding Basins* These provisions of the ordinance supplement existing code prohibitions against illegal dumping.
- *Discharges in Violation of the NPDES Municipal Permit* The ordinance allows enforcement action to be taken against dischargers causing violations of the municipal NPDES permit.
- *Discharges in Violation of NPDES Industrial Permits* The ordinance establishes an authority that is no less stringent than the State's General Permit requirements for controlling storm water discharges from industrial and construction activities.

The Ordinance authorizes each participating agency to:

- Adopt best management practice requirements;
- Require remediation for pollution of storm water, the storm drain system, or water of the United States; and
- Require monitoring of discharges suspected of violating the ordinance; and
- Require residents or businesses to take reasonable measures to contain and cleanup any spill that threatens to be discharged to the storm drain system, and to notify the District if a spill affects the storm drain system.

The Ordinance is enforced through the enforcement provisions of the Ordinance and each agency's codes. Each participating agency modified the Ordinance to refer to their specific: 1) enforcement officer, 2) administrative hearing and appeal process, 3) cost-recovery mechanism, and 4) penalties.

The Ordinance ensures the following corrective actions are taken when a violation is identified by a participating agency: 1) identify the required corrective action, establish a schedule for compliance on the inspection report, and re-inspect; 2) issue a notice of violation with required corrective action and schedule, and re-inspect; and 3) if progress toward compliance is inadequate, schedule and provide notice of an administrative hearing before the hearing officer. The individual or business being issued a notice of violation may, upon written request, appeal the action to the hearing officer. The appeal is then considered at a noticed administrative hearing.

At the administrative hearing, the hearing officer will determine the required corrective action(s), establish a compliance schedule, and decide if the agency should take corrective action, such as abatement and/or cleanup. The individual or business being issued the notice of violation will be liable for all corrective action costs incurred by the agency.

An individual or business may appeal the hearing officer's decision to the decision-making body that will determine the appropriate remedy. Enforcement remedies available include filing suit, a lien, injunction, or other civil remedy; and referring the case to the Regional Board, District Attorney, or city or County legal counsels. The cities and County may impose penalties. To date, the District has not adopted enforcement penalties.

4.3 MEMORANDUM OF UNDERSTANDING

Implementing the Ordinance results in some overlap of authorities within the participating agencies' jurisdictions. A model MOU was developed to identify each agency's responsibilities to carry out the Ordinance to avoid the potential for unnecessary and inefficient duplication of effort among the agencies. The MOU is not required for an agency to adequately implement the Ordinance. During the first permit term, the City of Clovis and the County each independently entered into an MOU with the District. The City of Fresno and the District are working toward executing an MOU pending determination by the District of whether additional District enforcement authorities (penalties) will be adopted.

In accordance with the executed MOUs, the District will have the primary responsibility for enforcing the Ordinance within the District's service area. The County will have sole responsibility for the Copper-Friant Study Area because it is located outside the District's boundary. The participating agencies will be responsible for: 1) identifying problems associated with storm water during their daily, routine field activities, 2) notifying the parties causing the problem, and noting the problem in an inspection form or report, and 3) refer the case to the District. Upon referral, the District will proceed with the appropriate enforcement action as specified in the Ordinance.

Until such time as the City of Fresno and the District execute an MOU, the City will have greater responsibility for enforcing the storm water quality control ordinance than would be the case if the MOU was completed.

The District and agency responsibilities summarized above were determined through a cooperative effort among the District and the agencies during the development of the plan. The responsibilities were incorporated as performance requirements into the NPDES storm water permit and have been implemented by the agencies throughout the first permit term. The responsibilities were not changed in the revised plan.

4.4 PHASE II REGULATIONS

Phase I and Phase II of the stormwater regulations require adequate legal authorities to develop, implement and enforce the plan. Currently, the District and its co-permittees have adequate legal authorities to meet Phase I requirements. Upon implementation of Phase II, the

existing authorities will need to be reviewed and revised as necessary to meet Phase II requirements.

4.5 MEASURABLE GOALS

1. Investigate the need for a District Enforcement Ordinance

The District has adopted a number of ordinances through the powers and authorities of the District Act. To date, the District has been able to enforce its ordinances primarily through voluntary compliance, and when necessary, through agency, state and federal laws and regulations and associated penalties levied by the proper jurisdiction. The District has the option to pursue enforcement through lawsuits and other court filings, as well as to refer violations to the Regional Water Quality Control Board or other enforcement authorities. The District Board is investigating the need to establish and adopt a District Enforcement Ordinance. If an ordinance is needed, the District Board will proceed with the adoption of appropriate authorities.

2. Investigate need to enter into an MOU with the City of Fresno

The City of Fresno and District have not entered into an MOU pending District consideration of an Enforcement Ordinance. The lack of an MOU requires the City to assume greater responsibility for enforcing the storm water quality ordinance. Upon further consideration, if beneficial an MOU will be developed and signed by the District and City.

3. Public Education Efforts

The District and participating agencies will continue to conduct public education efforts to ensure widespread awareness of and compliance with the Ordinance.

4. Employee Training Program

The District and agencies will incorporate into all employee training and refresher programs requirements of the Ordinance and conditions of the MOU where applicable.

5. Revise Ordinance if necessary to incorporate provisions for Phase II storm water regulations.

4.6 ASSESSMENT TASKS

Compliance and assessment evaluation will be conducted on an annual basis to determine the progress and status for each co-permittee in the implementation of measurable goals and subtasks contained in this section.