

JOHNSON LANE STORMWATER MANAGEMENT PLAN

FINAL

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Introduction

The Johnson Lane Stormwater Management Plan (JLSWMP) was developed to meet the requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (NVS04000), effective July 5, 2010. The 2010 MS4 permit required that a revised JLSWMP be developed to meet the new permit conditions. 40 CFR §122.34 requires that owners operators of MS4 stormwater systems reduce the discharge of pollutants to the maximum extent practicable (MEP). The regulations further define elements in a stormwater management program that are required to meet the MEP goal. The Douglas County JLSWMP includes each of the minimum control measures defined the CFR and therefore meets the MEP as defined in the regulations. Additionally "Implementation of best management practices consistent with the provisions of the stormwater management program required pursuant to this section and the provisions of the permit required pursuant to §122.33 constitutes compliance with the standard of reducing pollutants to the "maximum extent practicable" (MEP). This plan includes an implementation schedule that was outlined in the 2003 Notice of Intent (NOI) (Attachment A) for each of the BMP's outlined in the MS4 permit. No changes to the original NOI were required and it is attached for reference.

The Carson River has been identified as an impaired water by NDEP and has had a Total Maximum Daily Load (TMDL) in place since 1980 for biological oxygen demand, dissolved oxygen, orthophosphates, nitrates and total dissolved solids. Nevada Department of Environmental Protection (NDEP) Water Quality Planning Branch developed and EPA adopted new TMDL's for Total Suspended Solids (TSS), Turbidity, and Total Phosphorous (TP) in 2005 and 2007 respectively. There are no Waste Load Allocations in these TMDL's for point sources or non-point sources, however, the TMDL's make reference to the 208 Plan written by Brown and Caldwell under contract to the Carson Water Subconservancy "Water Quality Management Plan for the Carson River", 2005, for implementation of minimum control measures for stormwater as identified in this plan. The 2002 303(d) list included TSS, TP, sulfate, turbidity and total iron as parameters of concern, the 2006 303(d) list includes temperature and Zinc. TSS, turbidity and TP are on the 303(d) delisted list as they have TMDL's adopted. MS4 permit section numbers for the six minimum control measures (MCM) required by the permit have been added so that it is easier for the reader to follow.

II. Discharges to Water Quality Impaired Waters

II.A.1 Permit requirement. Determine whether stormwater discharge from any part of the MS4 significantly contributes directly or indirectly to a 303(d) listed waterbody.

Stormwater from the Johnson Lane portion of the Carson Urbanized Area map

discharges to the Carson River only in extreme storm events. The TMDL and the 208 Plans do not indicate that stormwater is a significant contributor to the water quality violations in the river.

II.B The permittee must determine whether a TMDL has been developed and approved by NDEP. If there is a TMDL, the permittee must comply with both parts II.B.2

In September 2005, NDEP developed and EPA adopted a TMDL for Total Phosphorus (TP) and in 2007 EPA adopted the TMDL for TSS and turbidity. Douglas County is in compliance with the intent of the TMDL's by implementing the BMP's and minimum control measures identified in this plan.

II.B 2.a. Determine whether the approved TMDL is for a pollutant likely to be found in stormwater discharges from the permittee's MS4.

TSS, TP and turbidity are naturally occurring and are likely to be in stormwater discharges, however, stormwater was not identified as a significant contributor to loading for the Carson River TMDL's. The JLSWMP implements the MCM to minimize the discharge of these parameters to the MEP as required by the permit.

II.B.2.b. Determine whether the TMDL includes a pollutant wasteload allocation (WLA) or other performance requirements specifically for stormwater discharge from the permittee's MS4.

The TMDL's for TP, TSS and turbidity indicate that the Carson River 208 Plan developed by the Carson Water Subconservancy District will discuss implementation strategies to reduce the observed pollutant loads in order to meet TMDL's. The 2005 Water Quality Management Plan for the Carson River (208 Plan) includes implementing the MS4 permits to reduce the targeted pollutants the maximum extent practicable. No specific wasteload allocations were identified and stormwater was not identified as being a major contributor to the exceedences.

II.B.2.b. Determine whether the TMDL addresses a flow regime likely to occur during periods of stormwater discharge.

Stormwater is unlikely to reach the river during the low flow events such as rainfall events below the seven day, ten year, low flow event (7Q10). However, in the development of the Carson River TMDL's NDEP used all flow regimes, so it is likely that storm events occur when the TMDL is applicable.

II.B.2.c. Assess whether the WLA's are being met through implementation of existing stormwater control measures or if additional control measures are necessary.

TMDL's adopted for the Carson River do not have WLA's for stormwater. The 2005 208 plan indicates that the BMP's and minimum control measures required in the MS4 permits will adequately address non-point source pollutant loading. Douglas County requires stormwater control measures that reduce the discharge of pollutants to the maximum extent practicable (MEP).

II.B.2.e. Document all control measures currently being implemented or planned to be implemented and are consistent with the WLA. These measures shall be reported in the annual report. A schedule of implementation for all planned controls shall be included in the Stormwater Management Plan as described in Sections IV and V.

A WLA for stormwater has not been developed for stormwater discharges to the Carson River, however, Douglas County has implemented this SWMP for the Carson Urbanized Area and the actions taken to comply with this permit reduce the discharge of pollutants to the maximum extent practicable (MEP).

II.B.2.f. Estimate reductions of pollutants through established and accepted BMP performance studies, calculations, models or other evidence that shows that the WLA will be addressed through the implementation of the approved SWMP, and reported in the Annual Report.

The implementation of the BMP's and other elements of this plan reduce the discharge of pollutants to the maximum extent practicable (MEP). There is no WLA for stormwater discharges in the adopted TMDL's.

II.B.2.g Describe a monitoring program to determine whether the stormwater controls are adequate to meet the WLA to the MEP.

A WLA for stormwater has not been developed. Discharges from the Johnson Lane area is from non-point sources such as one acre rural residential urban development. The roads have dirt roadside ditches which carry stormwater to agricultural land then ultimately to the Carson River as a non-point source.

II.B.2.h If no WLA exists, but is developed during the term of this permit, then the BMP's outlined in the SWMP are expected to be sufficient for the duration of the permit.

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II.B.2.i If Douglas County determines that additional control measures are needed, then Douglas County will revise the SWMP accordingly.

II.B.3. Douglas County has determined that Carson River has been listed on the 303 (d) list for temperature and zinc.

These parameters could not be attributed to stormwater discharges.

The JLSWMP has been designed to implement the six control measures identified in the MS4 permit to control stormwater discharges to Clear Creek to the MEP.

V.I.A Minimum Control Measures

VI.A. Public Education and Outreach

VI.A.1. Public Education and Outreach: The permittee must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff.

Douglas County as a MCM, includes a link to the EPA website where educational materials on steps the public can take to reduce pollutants in stormwater runoff on the Douglas County website. Above and beyond the MCM, the Carson Water Subconservancy District (CWSCD) was formed under Nevada Revised Statutes (NRS) 621 and has as one of its primary functions public education and outreach. Douglas County Commissioners sit on the Board of the CWSCD and direct the public education and outreach. The activities conducted by CWSCD are included in the annual report each year for informational purposes only, not for compliance with this permit.

Educational materials are available from a variety of sources regarding stormwater pollution impacts and Best Management Practices (BMP's) to prevent stormwater pollution. Best Management Practices at a minimum include silt fence and/or vegetative buffer strips at all down slope boundaries.

VI.A.2. Decision Process The permittee must document the permittee's decision process for the development of a stormwater public education and outreach program. The permittee's rationale statement must address both the overall public education program and the individual BMP's, measurable goals and responsible persons for the program. The rationale statement must include the following information, at a minimum:

The Douglas County approach to informing the public includes the public noticing and placement of the draft plan on the County website. Public comment was solicited and responses are included as Attachment B to this plan. Two public hearings were held, one December 15, 2011 where public comment was received on the draft plan and January 5, 2011 public comment was received on the final plan. This meets the MCM. In addition to the MCM, Douglas County

supports organizations such as the CWSCD who regularly work in the Carson Valley to educate the public with river clean-up days, WET projects for school children, workshops for contractors and developers, education for the small rancher to manage stormwater, agriculture stormwater management and the development of watershed plans with a comprehensive approach to watershed health and management. Douglas County commissioners sit on various agencies, committees and attend workshops public television spots etc. to inform the public about the protection of stormwater.

VI.A.2.a The plan to inform individuals and households about the available steps to reduce stormwater pollution.

The County will inform individual households and commercial or retail businesses about stormwater pollution prevention through the County web site as a MCM. The Final JLSWMP will be included in its entirety on the website. A link to the CWSCD is provided on the Douglas County website above and beyond the MCM. This public outreach will include information as to how individuals, households and businesses can reduce stormwater pollution and how to become involved in stormwater pollution prevention. The County may also include information regarding stormwater pollution prevention in utility bills and at the public counter.

VI.A.2.b. The plan to inform individuals and groups on how to become involved in the stormwater program.

Douglas County will inform individuals and groups through the County website as the MCM. Links to various organizations such as CWSCD involved with water quality in the valley and events sponsored by these groups or Douglas County will be available above and beyond the permit requirements. Educational materials may be handed out at various events or shown on public television.

VI.A.2.c. The target audiences for the permittee's education program who are likely to have significant stormwater impacts (including commercial, industrial and institutional entities) and why those target audiences were selected.

The target audience for the Carson Urbanized Area covered by the JLSWMP is generally residential. Construction sites are also targeted and will be reached by the Douglas County permitting program. The web site is the MCM and is expected to reach the target audience. Any workshops, special events, cooperating group events etc. put on by CWSD are above and beyond the MCM required for the permit.

VI.A.2.d The target pollutant sources that the permittee's public education program is designed to address.

The target pollutant sources in the public outreach program are erosion from

construction activities, discharge from parking lots and illegal dumping into storm drains. The target pollutants for the JLSWMP are the constituents, which are typical of discharges from parking lots. Those constituents are total suspended solids (TSS), total petroleum hydrocarbons (TPH), total phosphorous (TP) and turbidity. The new parameters of concern identified in the 2006 303(d) list include zinc and temperature which are not considered to be indicative of non-point source run-off.

VI.A.2.e What is the permittee's outreach strategy, including the mechanisms (e.g., printed brochures, newspapers, media, workshops, etc.) you will use to reach your target audiences, and how many people are expected to be reached by your outreach strategy over a period of time.

The draft JLSWMP was taken to a public hearing on December 15, 2011 and public comment is accepted at that hearing. The draft plan was placed on the County website and comments were solicited from the public. The BOCC then directed staff to respond to the comments and bring the final plan back on January 5, 2012. At the meeting on January 5, 2012, public comment will again be accepted and the BOCC will either adopt, modify or deny the JLSWMP. This is the MCM.

Additionally, above and beyond the MCM of the permit, the Douglas County outreach strategy is to combine all available avenues into a comprehensive outreach over a period of time. Through the CWSCD brochures, workshops, public television spots, education workshops for middle school children, river work days are some of the targeted strategies. If 10% of the target audience is reached each year then 50% of the target audience can be reached over the permit life.

VI.A.2.f. The person responsible for overall management and implementation of the permittee's stormwater public education and outreach program and if different, who is responsible for each of the BMP's identified for this program.

The Douglas County Public Works Department is ultimately responsible for the stormwater public education program. Including the link to the EPA website and placing the JLSWMP on the website Douglas County is meeting the MCM to the MEP. Above and beyond the MCM, The County is in close involvement with the CWSCD to implement education and outreach goals.

VI.A.2.g The measures used to evaluate the success of this minimum measure, including the permittee selected measurable goals for each of the BMP's

Success in the public outreach control measure will be measured by implementation of the EPA link and placing the JLSWMP on the Douglas County website. Actions above the MCM include cooperation on workshops for contractors, students and developers, educational materials development,

distribution, and public television programs. At least one of these public outreach activities occurring per year will be considered a success.

VI.B. Public Involvement/Participation

VI.B.1 The permittee must at a minimum, comply with State and local public notice requirements when implementing a public involvement/participation program.

The JLSWMP was brought before the BOCC December 15, 2011, at a public hearing for review, comment and adoption. The public noticing requirements are met for this public hearing and public comment was accepted at this meeting. The BOCC directed staff to respond to public comments (Attachment B) and bring a final plan back for review on January 5, 2012. Public comment will be accepted at that meeting also. The BOCC is required to adopt the JLSWMP for it to be in effect in Douglas County.

VI.B.2. Decision process. The permittee must document the decision process for the development of a stormwater public involvement /participation program. The permittee's rationale statement must address both the overall public involvement program and the individual BMP's measureable goals, and responsible persons for the program. The rationale statement must include the following information at a minimum:

VI.B.2.a. The steps taken to involve the public in the implementation of the stormwater management plan.

As a MCM, State and local public notice requirements were complied with when the JLSWMP was reviewed by the BOCC at a public meeting and placing the draft plans on the County website for public comment. A second public meeting was held on January 5, 2012 with the final plan which was revised pursuant to public comment and BOCC direction. The public comments and input on the plan are included as Attachment B.

VI.B.2.b The plan to actively involve the public in the development and implementation of your program.

AS stated above, Douglas County received and responded to public comment on the draft plans and made revisions as directed by the BOCC. In addition to the MCM, Douglas County is involved in various groups actively involved in watershed program development. Each group involves a different part of the community involved with stormwater pollution prevention. County Commissioners and County staff sit on the various groups involved in watershed plan development.

VI.B.2.c The target audiences for the permittee's public involvement program,

including a description of the types of ethnic and economic groups engaged. The permittee is encouraged to actively involve all potentially affected stakeholder groups, including commercial and industrial businesses, trade associates, environmental groups, homeowners associations and educational organizations.

The target audience for the public involvement program include contractors developers, commercial businesses, industry, agriculture and residential homeowners. No specific ethnic or economic group will be targeted.

VI.B.2.d The types of public involvement activities included in the permittee's program. May include:

VI.B.2..d.i Citizen representatives on stormwater management panel;

This will be considered should the opportunity arise for a stormwater management panel.

VI.B.2.d.ii. Public hearings,

Douglas County held two public hearings on the adoption and content of the JLSWMP

VI.B.2.d.iii Citizen volunteers willing to educate others about the program, volunteer monitoring or stream clean-up activities.

Volunteer groups are above the MCM required by the permit. Several work on the Carson River including the Carson Water Subconservancy District, the Carson Valley Watershed plan working group, Douglas County Builders Association, UNR Cooperative Extension are a few of the organizations that are attended by Douglas County staff and supported in their efforts with stormwater pollution prevention and education.

VI.B.2.d.iv Volunteer monitoring for stream or lake clean-up activities.

These activities are managed by the CWSCD in cooperation with Douglas County and are above the MCM.

VI.B.2.e The person(s) responsible for the overall management and implementation of the permittee's stormwater public involvement/participation program and, if different, who is responsible for each of the BMP's identified for this program.

The Douglas County Public Works Department is responsible for implementing the public involvement and participation program. The plan was presented at the BOCC meeting and the website work were completed by Douglas County staff. In addition to the MCM, two County Commissioners sit on the Subconservancy

Board and approve the education public participation plans. Staff are involved with other agencies to promote stormwater issues whenever possible.

VI.B.2.f Metrics the permittee evaluate the success of this minimum measure, including how you selected the measurable goals for each of the BMP's?

Success will be measured by the presentation of the JLSWMP to the public at two Commissioners meetings and putting the draft plan on the County website. The schedule for the presentations is the December 15, 2011 and January 5, 2012 Board of Commissioners meetings.

VI.C. Illicit Discharge Detection and Elimination

VI.C.1 The permittee must:

VI.C.1.a Develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 40 CFR§122.26(b)(2) into the Permittee's MS4.

County staff will be advised about Title 8 and impacts of non-stormwater discharges. County staff will be trained to detect and address these discharges during annual maintenance of stormwater systems and during routine maintenance around the County. Any illicit discharges will be dealt with through the District Attorneys office to prosecute offenders.

VI.C.1.b Develop a storm sewer map showing the location of all outfalls and the names and location of all waters of the United States that receive discharge from those Outfalls.

The County has developed a map of stormwater systems in the Johnson Lane portion of the Carson Urbanized Area that discharges to Carson River. The map will be used in the County's program to detect and eliminate illicit discharges.

A map of storm sewers was developed by Douglas County GIS using as-built's of all the projects in the Johnson Lane Carson Urbanized Area. The storm system map will be updated with as-built's of all new projects in the Carson Urbanized Area, annually or as appropriate. This map of the storm sewers has been given to the Roads Department who is responsible for the annual maintenance program. The annual maintenance program includes hydrovacuuming all the drop inlets in the public right of way. Additionally, in some instances the Home Owners Association responsible for the detention pond on Johnson Lane has contracted with the Roads Department to do maintenance on that pond.

VI.C.1.c. To the extent allowable under State, or local law, effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the permittee's storm sewer system and implement appropriate enforcement procedures and actions.

Title 8 Section 14.030 Unlawful dumping of garbage, rubbish and waste matter, of the Douglas County Code in summary makes it unlawful to discharge any deleterious or offensive matter into any water or stream. Chapter 1.08 General Penalty of the Douglas County code makes it unlawful to violate any provision of the Code. These regulations prohibit non-stormwater discharges to stormwater systems and provide an enforcement system to fine or otherwise punish offenders.

VI.C.1.d Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to the permittee's system.

County staff will be advised about Title 8 and impacts of non-stormwater discharges. County staff will be trained to detect and address these discharges during annual maintenance of stormwater systems and during routine maintenance around the County. Any illicit discharges will be dealt with through the District Attorneys office to prosecute offenders.

The plan to detect illicit discharges is to inspect existing facilities under County management. Any unusual odors or monitoring data will be investigated and reported to management for further action.

VI.C.1.e. Inform public employees, business and general public about the hazards associated with illegal discharges and improper disposal of waste.

The web site contains a link to the EPA website which contains information about the hazards associated with illegal discharges and improper disposal of waste. This will educate the general public. County newsletters may include articles about stormwater pollution prevention from time to time.

VI.C.1.f and g Address illicit discharges of the permittee identify them as significant contributors of pollutants to the permittee's small MS4:

Illicit discharges in the Johnson Lane Carson Urbanized Area have not been detected to the point that they are considered significant contributors. County staff are ready to act should illicit discharges be encountered.

VI.C.1.g The permittee may also develop a list of other occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.) that will not be addressed as illicit discharges.

If occasional non-stormwater discharges are found to merit control conditions, then Douglas County will develop such requirements.

VI.C.2. The permittee must document the decision process for the development of a stormwater illicit discharge detection and elimination program. The

permittee's rationale statement must address both the overall illicit discharge detection and elimination program and the individual BMP's, measurable goals, and responsible persons for the program. The rational statement must include the following information:

VI.C.2.a. The plan the permittee will use to develop a stormwater sewer map showing the location of all outfalls and the names and location of all receiving waters. Describe the sources of information the permittee used for the maps and how the permittee plans to verify the outfall locations with field surveys. If already completed describe how the map was developed. Also, describe how the map will be regularly updated.

The map of storm sewers in the Johnson Lane Carson Urbanized Area was developed using as-built's of all the projects in this area. The storm system map will be updated with as-built's of all new projects in the Johnson Lane Carson Urbanized Area, annually or as needed. This map of the storm sewers has been given to the Roads Department who is responsible for the annual maintenance program. The annual maintenance program includes hydrovacccuuming all the drop inlets in the public right of way. The activity is usually contracted out to an outside vendor.

VI.C.2.b The mechanism (ordinance or other regulatory mechanism) the permittee will use to effectively prohibit illicit discharges into the MS4 and why the mechanism was chosen. If the permittee's ordnance or regulatory mechanism is already developed, include a copy of the relevant sections with the program.

Title 8 Section 14.030 Unlawful dumping of garbage, rubbish and waste matter, of the Douglas County Code in summary makes it unlawful to discharge any deleterious or offensive matter into any water or stream. Chapter 1.08 General Penalty of the Douglas County code makes it unlawful to violate any provision of the Code. These regulations prohibit non-stormwater discharges into storm sewers and provide an enforcement system to fine or otherwise punish offenders.

The Douglas County Public Works Department is ultimately responsible for the overall management and implementation of the stormwater illicit discharge detection and elimination program. Success will be determined as an ongoing effort to detect and eliminate any illicit discharges.

VI.C.2.c The permittee's plan to ensure through appropriate enforcement procedures and actions that the illicit discharge ordinance (or other regulatory mechanism) is implemented.

Title 1 and 8 are available on the County website. A link has been set up to the EPA stormwater website, and the JLSWMP is available on the website. In this way, the public can be informed of the stormwater program and the County code.

The District Attorney's office regularly enforces the County Code.

VI.C.2.d Describe your plan to detect and address illicit discharges to your system, including discharges from illegal dumping and spills

The Douglas County transfer station accepts hazardous waste at no fee to the public and in this way Douglas County has reduced the need for the public to illegally discharge hazardous materials, possibly into the stormwater system. The County staff including, inspectors, technicians and Code Enforcement are all trained to watch for any illegal dumping or discharges. During the annual maintenance program any unusual odors or substances noticed by the Road Department are reported to Public Works staff. If suspicious circumstances are found, an investigation is started and followed up to and including a referral to the District Attorney's office where violators can be prosecuted.

VI.C.2.d.i. Procedures for locating priority areas which include areas with a higher likelihood of illicit connections (e.g. areas with older sanitary sewer lines, for example) or ambient sampling to locate impacted reaches.

The JLSWMP covers such a small area and the facilities are all new (e.g. less than 20 years old, that a plan for prioritizing areas for illicit discharge detection is not necessary at this time. Should conditions change in the future, Douglas County will develop a prioritization plan.

VI.C.2.d.ii Procedures for tracing the source of an illicit discharge, including the specific techniques that will be used to detect the location of the source.

The area encompassed by this permit is so small that the source of any illicit discharge will be located by opening manholes and moving back upstream until the discharger can be located. If this is not successful, it is likely that a contractor with a video camera capable of taking pictures of the inside of storm sewer lines will be enlisted to help determine the location of the discharge.

VI.C.2.d.iii Procedures for removing the source of the illicit discharge.

Illicit discharger sources will be removed by the District Attorney's office.

VI.C.2.d.iv Procedures for program evaluation and assessment:

The program will evaluate itself annually during the maintenance program to determine if any illicit discharges have been encountered or missed.

VI.C.2.d.v The plan the permittee will use to inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste. Discuss how this plan will coordinate with the public education minimum measure and the pollution prevention/good

housekeeping minimum measure programs.

Public employees will be informed through the use of the County newsletter and website including articles about stormwater pollution prevention and what to do if an illegal discharge is found. The public will be informed through the use of the County website and public hearings on the JLSWMP. In addition to the MCM, public education will be coordinated through the working groups including the CWSCD for all different levels of the public including contractors, school children, developers and volunteers.

VI.C.2.d.vi The person(s) responsible for overall management and implementation of your stormwater illicit discharge detection and elimination program and if different, who is responsible for each of the BMP's identified for this program.

The Public Works Department and the Community Development Departments are ultimately responsible for the overall management of this program.

VI.C.2.d.vii How will the permittee evaluate success of this minimum measure including the measurable goals for each of the BMP's were selected.

Success will be determined with follow-up and elimination of all illicit discharges detected; the storm sewer map being kept current; the Douglas County web site being operational; at least one article for public employees. In addition to the MCM, County participation in stormwater and watershed working groups will be encouraged.

VI.D Construction Site Storm Water Runoff Control

VI.D.1 The permittee must develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to the permittee's small MS4 from construction activities that result in a land disturbance of greater than or equal top one acre. Reduction of stormwater discharges in the program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. If the NPDES permitting authority waives requirements for stormwater discharges associated with small construction activity in accordance with 122.26(b)(15)(1), the permittee is not required to develop, implement, and/or enforce a program to reduce pollutant discharges from such sites. The permittee's program must include the development and implementation of at a minimum:

VI.D.1.a An ordinance or other mechanism to require erosion and sediment controls, as well as sanction to ensure compliance, to the extent allowable under State, or local law;

Douglas County Design Criteria and Improvement Standards Manual (DCDCIS),

Division 7, Erosion Control Design Criteria requires all construction sites requiring a Site Improvement Permit (SIP) to include erosion control as appropriate. The Design Manual requires construction sites to utilize erosion control techniques in the Nevada "Best Management Practice Manual". County engineering staff reviews and approves all SIP's. This review includes a review of the proposed erosion control measures. SIP's are public information and can be reviewed at the County offices in Minden. Building Permit and SIP applications require that the applicant indicate whether they have submitted an NOI the State of Nevada to be included on the General Permit for Stormwater Associated with Construction Activity, or Small Construction Activity (NVR100000) if the project will disturb one acre or greater. The DCDCIS is available on the County Website.

VI.D.1.b Requirements for construction site operators to implement appropriate erosion and sediment control best management practices.

The County currently has an SIP tracking system and will utilize it to track erosion control measures. County staff inspects all construction projects to ensure that erosion control measures are installed per the approved SIP. If the County inspector determines that the erosion control BMP's have not been installed per the SIP a Red Tag-Stop Work order can be issued to the contractor. Work is not allowed to resume until the issues are resolved.

VI.D.1.c Requirements for construction site operators to control waste such as discharged building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.

The Design Manual requires the use of BMP's and the construction permits as well as Title 8 require that the construction site be managed to control any waste or runoff.

VI.D.1.d Procedures for site plan review which incorporate consideration of potential water quality impacts.

All plans for construction in Douglas County are reviewed by County engineers and inspectors for erosion control BMP's.

VI.D.1.e Procedures for receipt and consideration of information submitted by the public; and

All complaints are submitted to the Code Enforcement Branch or the District Attorney and investigated for potential violations of County Code.

VI.D.1.f Procedures for site inspection and enforcement of control measures.

County staff inspects all construction projects to ensure that erosion control measures are installed per the approved SIP. If the County inspector determines that the erosion control BMP's have not been installed per the SIP a Red Tag-Stop Work order can be issued to the contractor. Work is not allowed to resume until the issues are resolved.

VI.D.2 The permittee must document the decision process for the development of a construction site stormwater control program. The permittee's rationale statement must address both the overall construction site stormwater control program and the individual BMP's, measurable goals, and responsible persons for the program. The rationale statement must include the following at a minimum:

VI.D.2.a The mechanism (ordinance or other regulatory mechanism) the permittee will use to require erosion and sediment controls at construction sites and why that mechanism was chosen.

Douglas County Code, Title 20.800 requires that all construction projects obtain a Site Improvement Permit. The DCDCIS requires that all projects include erosion controls and utilize the Nevada BMP manual. Those sites are inspected by County inspectors to ensure that BMP's are installed and maintained. Title 20 can be found on the County website.

VI.D.2.b The permittee's plan to ensure compliance with the erosion and sediment control regulatory mechanism, including the sanctions and enforcement mechanisms that will be used to ensure compliance. Describe the permittee's procedures for when the permittee will use certain sanctions. Possible sanctions include non-monetary penalties (such as stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.

County staff inspects all construction projects to ensure that erosion control measures are installed per the approved SIP. If the County inspector determines that the erosion control BMP's have not been installed per the SIP a Red Tag-Stop Work order can be issued to the contractor. Work is not allowed to resume until the issues are resolved. Additional sanctions include prosecution under Title 8.

VI.D.2.c The permittee's requirements for construction operators to implement appropriate erosion and sediment control BMP's and control waste at construction sites that may cause adverse impacts to water quality. Such wastes include discharged building materials, concrete truck washouts, chemicals, litter and sanitary wastes.

Douglas County Design Criteria and Improvement Standards Manual, Division 7, Erosion Control Design Criteria requires all construction requiring a Site Improvement Permit (SIP) to include erosion control as appropriate (DCDCIS is

available on the Douglas County website). The Design Manual requires construction sites utilize erosion control techniques in the Nevada "Best Management Practice Manual". County engineering staff review all SIP's. This review includes the erosion control measures. SIP's are public information and can be reviewed at the County offices in Minden. Building Permit and SIP applications require that the applicant indicate whether they have submitted an NOI the State of Nevada to be included on the General Permit for Stormwater Associated with Construction Activity, or Small Construction Activity (NVR100000) if the project will disturb one acre or greater.

VI.d.2.d The permittee's procedures for site plan review, including the review of reconstruction site plans, which incorporate consideration of potential water quality impacts. Describe the permittee's procedures and the rationale for how the permittee will identify certain sites for site plan review, if not all plans are reviewed. Describe the estimated number and percentage of sites that will have pre-construction site plans reviewed.

All site plans are reviewed and inspected for erosion control BMP's for compliance with the Design Manual which requires the use of erosion control measures during construction.

VI.2.D.e The permittee's procedure for receipt and consideration of information submitted by the public. Consider coordinating this requirement with the public education program.

Complaints are registered and sent to the Code Enforcement Branch or the District Attorney for follow up. The public may register complaints by phone or by coming in to the public counter.

VI.2.D.f The permittee's procedures for site inspection and enforcement of control measures, including how the permittee will prioritize sites for inspection.

All construction sites are inspected. A Notice of Completion is issued at the end of the project. All stormwater and drainage improvements are required to be maintained by the private property owner or for public improvements by the County or other public agency. The County has a similar process for Building Permits including a tracking system, inspections and a Certificate of Occupancy at the end of the project.

VI.D.2.g The person(s) responsible for the overall management and implementation of the construction site stormwater control program and, if different, the person(s) responsible for each of the BMP's identified in this program

The Douglas County Community Development Department is responsible for the overall management and implementation of the construction site stormwater

control program. The County Commissioners adopted the Design Manual in 1998 and the JLSWMP in 2012.

VI.D.2.h. Describe how the Permittee will evaluate the success of this minimum measure, including how the Permittee selected the measurable goals for each of the BMP's.

Success of the Construction Site Stormwater Run-off Control will be determined by completed plan reviews, site inspections and installation of BMP's at each site.

VI.E Post-Construction Stormwater Management in New Development and Redevelopment

VI.E.1 The Permittee must develop a post-construction stormwater management BMP program for new development and significant redevelopment projects that is suited for the unique hydrologic, hydrogeologic and regional conditions of the Permittee's locality. The program shall focus on planning procedures consistent with the goals identified in Part VI.E.2.

All development in Douglas County goes through a design review process at Community Development where Conditions of Approval are established and are enforced. One of the conditions of approval on all development is that they maintain all drainage facilities on their property. The Douglas County engineers and inspectors ensure the site installs permanent BMP's per the civil plans and conditions of approval on all development require maintenance of these facilities.

VI.E.2 The post-construction stormwater management program shall have the following goals:

VI.E.2.a To prevent stormwater discharges from post-construction projects from causing or contributing to downstream violations of water quality standards of any pollutant of concern to the MEP; and

VI.E.2.b To promote the improvement of ambient water quality by reducing the discharge of pollutants in stormwater.

The DCDCIS Division 6 Storm Drainage specifically requires that drainage leaving a development may not be of a quality that will adversely affect downstream uses. The DCDCIS has design standards for treatment facilities and the volume and flow of stormwater leaving developments.

VI.E.3 The post-construction stormwater management program shall address at a minimum the following elements:

VI.E.3.a.i Describe how the Permittee will develop, implement and enforce a program to address post-construction urban run-off from projects that disturb

greater than one acre and less than one acre that are part of a larger common plan of development or sale, that discharge into the permittee's MS4. The permittee's program must ensure that controls are in place that would prevent or minimize water quality impacts;

New development and redevelopment projects are required to go through a County Development Review process. The Development Review process includes mitigation measures for stormwater runoff from development pursuant to the DCDCIS, Division 6 Drainage (County website). Conditions of approval for projects include landscaping, stormwater mitigation measures, and erosion control measures and long-term maintenance of stormwater, drainage mitigation, erosion control improvements throughout the life of the project.

Title 20.100.060 Drainage Facilities (County website) requires that any development include drainage facilities "capable of conveying...stormwater runoff ...without resulting in erosion, sedimentation or flooding of the receiving water. A Building permit (BP) or Site Improvement permit (SIP) is required prior to starting construction. During permit application review erosion control measures are reviewed and the use of the State of Nevada "Best Management Practices" is reviewed. The SIP inspectors or BP inspectors ensure that the BMP's are in place during construction.

VI.E.3.a.ii Describe how the Permittee will develop low- impact development (LID) measures that will remain in effect after construction is complete and that are effective and appropriate for the Permittee's locality and it's environment.

The DCDCIS Division 6, Drainage, includes a section on Low Impact Design and although it is small, it opens the door for projects to include this concept in their design. Specifically, the Truckee Meadows Regional Stormwater Quality Management Program Low Impact Development Handbook is referenced as it was developed for the region and has been found to be appropriate for projects in Douglas County.

VI.E.3.a.iii Describe how the Permittee will develop any additional structural and non-structural BMP's that will remain in effect after construction is complete and are effective and appropriate for the Permittee's locality and its environment.

Any additional stormwater facilities would be designed per the DCDCIS. Should the opportunity for this to occur arise, the County will include the plan in the JLSWMP revision, however, none are anticipated at this time.

VI.E.3.a.iv Describe procedures to assure that future regional flood management projects assess the impacts on the water quality of receiving water bodies;

There are no regional flood projects planned at this time. If in the future, a regional flood management project is designed, it would be required to meet the

standards in the DCDCIS which include assessing impacts to water quality.

VI.E.3.a.v Describe how the Permittee will develop and implement an ordinance or other regulatory mechanism to address urban stormwater runoff from development projects;

New development and redevelopment projects are currently required to go through the County Development Review process. The Development Review process includes mitigation measures for stormwater runoff from development pursuant to the DCDCIS, Division 6, Drainage (County website). Conditions of approval for all projects include landscaping, stormwater mitigation measures, and erosion control measures and long-term maintenance of stormwater, drainage mitigation, erosion control improvements throughout the life of the project.

Title 20.100.060 Drainage Facilities (County website) requires that any development include drainage facilities "capable of conveying...stormwater runoff ...without resulting in erosion, sedimentation or flooding of the receiving water. A Building permit (BP) or Site Improvement permit (SIP) is required prior to starting construction. During permit application review erosion control measures are reviewed and the use of the State of Nevada "Best Management Practices" is reviewed. The SIP inspectors or BP inspectors ensure that the BMP's are in place during construction and that permanent facilities are constructed per the approved plans.

VI.E.3.a.vi Describe how the Permittee will provide verification of maintenance provisions for structural BMP's located on private property that are subject to post-construction structural BMP requirements.

Douglas County uses existing staff to verify operation and maintenance of drainage systems. Periodic inspections are conducted to verify adequate maintenance. An unsuccessful attempt at creating a Stormwater Utility last year would have provided resources for a more structured program. This proposal may be submitted to the BOCC at some point in the future.

VI.E.3.a.vii Describe how the Permittee will develop and implement an inventory and tracking system for post construction structural stormwater BMP's. The inventory and tracking system shall use at a minimum the following items; project or property owners name, project location, project acreage, BMP type and description, inspection or contact date and summary of recommendations or any necessary corrective actions undertaken.

At the present time, Douglas County has several systems in the public right-of-way in the Johnson Lane area. These systems are shown on the map of the system. A stormwater maintenance file is maintained by the Public Works Department and updated as appropriate. As time permits, the information above

may be put into a database, it is all accessible as needed in the form of GIS and as-builts.

VI.E.3.a.viii Describe how the Permittee will inspect and enforce the proper installation and long-term maintenance of post-construction structural BMP's

Douglas County construction inspectors inspect the proper installation of post-construction BMP's. Annual inspections of the stormwater facilities owned and operated by the County are conducted and annual maintenance is performed as required. Periodic inspections of the privately owned and operated BMP's are conducted by Public Works staff. Results of the inspections may be reported in the annual reports. The conditions of approval on each project in the County require the perpetual maintenance of all drainage facilities so any enforcement that is required will be turned over to the District Attorney for prosecution if necessary.

VI.E.3.a.ix Describe how the Permittee will update it's MS4 maps to show areas of new development or significant redevelopment (NDSR), including any new stormwater major infrastructure that was constructed to serve these areas.

Douglas County will periodically update the stormwater infrastructure maps when new projects are completed. As-builts are now scanned into the County computer system where they can be accessed by Public Works staff.

VI.E.3.b All NDSR projects submitted to the Permittee shall be subject to one or more of the SWMP design standards developed in accordance with Part VI.E.4.

VI.E.3.b.i-vii Residential subdivisions greater than 5 acres, hillside development, commercial and industrial development, automotive repair shops, retail gasoline outlets, restaurants, parking lots, any other developments where review by Douglas County is deemed appropriate.

Douglas County reviews all NDSR and does not place restrictions on which new developments or redevelopments are required to obtain reviews. The County review includes requirements that the development must meet to protect stormwater and mitigate drainage impacts.

VI.E.4 Design Standards

Douglas County has adopted the DCDCIS which includes design standards for development. Division 6, Storm Drainage and Division 7, Improvement Plans include the design standards required by the County. The DCDCIS was developed to implement Title 20 code requirements and Master Plan Goals as outlined above.

VI.E.4.a Peak-Urban Runoff Discharge Rates

DCDCIS, Division 6.1.5 Peak discharge rates for the 2 year, 24 hour storm, the 10 year 24 hour storm and the 25 year 24 hour storm are restricted to pre-developed flows.

VI.E.4.b Site Design BMP's

Post construction BMP's are required for all NDSR in Douglas County and site plan design criteria are included in the DCDCIS. Site plan designs are reviewed by County Engineering staff, while construction inspections are conducted by County construction inspectors.

VI.E.4.c Source Control BMP's

VI.E.4.c.i Slope and channel design or protection to minimize erosion

DCDCIS design standards for slopes and channel design are included at 6.1.4.5.6 and 7, Section 6.6.5.16 Outlet Protection and 6.6.7 Drainage Channels and Section 7.2.11 Erosion Control Design.

VI.E.4.c.ii Outdoor material storage areas designed to minimize the risk of stormwater runoff contacting pollutants.

Douglas County reviews all developments in accordance with the International Fire Code which requires secondary containment equal to or greater than the volume stored this minimizes the risk of pollutants entering stormwater.

VI.E.4.c.iii Trash storage areas designed to minimize the risk of stormwater runoff contacting and carrying away pollutants to the MS4.

Douglas County requires that Trash Enclosures be designed per the DCDCIS Appendix A. The design standards require the floor be sloped to a drain that discharges to the sewer system. The drain can be closed by the owners. This allows the owners to clean the trash enclosure and not discharge stormwater to the stormdrain system.

VI.E.4.d Structural Treatment Control BMP's

The DCDCIS Division 6, Storm Drainage, includes the design and sizing criteria for stormwater detention, treatment and retention facilities.

VI.E.4.d.i.3 Volumetric Treatment Control BMP design criteria

Douglas County uses an alternative design standard for sizing treatment facilities. The design storm for treatment facilities in Douglas County is the 25

year 24 hour storm event and the volume for any treatment facility is the difference between the pre-developed flow calculated using, rational method, HEC-HMS, HEC-RAS, TR-20, TR-55 or another approved method and the post-developed flow. Retention facilities must be sized for 150 percent of the post developed flow and only used when no downstream conveyance exists. See Division 6 Storm Drainage for a complete description of design criteria for treatment facilities.

VI.E.4.d.ii Flow based BMP design criteria

Douglas County uses synthetic rainfall data developed by the Soil Conservation Service for a Type II 24 hour storm. This method has been found to produce very conservative designs in determining the maximum flow rate of runoff from rainfall per hour, for each hour of a storm event from a development. A developer may request to use NOAA Atlas 14 site specific data as per Division 6.6.2 of the DCDCIS.

VI.E.4.f Effect of the Post-Construction Stormwater Management Program on Water Quality Standards and Drinking Water Supply

The criteria developed and used to design post-construction stormwater management facilities should not cause increases in the discharges of constituents of concern in the JLSWMP.

VI.F. Pollution Prevention/Good Housekeeping for Municipal Operations

The only municipal operation in the Johnson Lane Carson Urbanized Area is a portion of the North Valley Wastewater Treatment Plant (NVWWTP). The NVWWTP has an Operations and Maintenance Manual which includes housekeeping and pollution prevention at the plant.

VI.F.1.a Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

The operation and maintenance program in place for the Johnson Lane area of the Carson Urbanized Area is the O and M manual for the NVWWTP. The Utility Department is in charge of this part of the stormwater program and the operators are trained along with the Sewer Operator Certification Program in good housekeeping procedures.

The Road Department maintains the drop inlets in the public right-of-way annually and prepares a report for submittal to the state on these activities.

VI.F.1.b Using training materials that are available from EPA, the Division, Tribe or other organizations, the permittee's program must include employee training to

prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.

Douglas County has training programs for road maintenance operators, utility operators and maintenance workers which includes pollution prevention through good housekeeping in County projects. Parks and Recreation employees keep parks clean as part of their everyday duties, good housekeeping is a part of their training. Specific activities Parks conducts to reduce stormwater pollutants is to apply mulch to planting areas to reduce erosion and applies soil stabilizers to walking paths to reduce pollutants to stormwater. The County newsletter may include information on pollution prevention and good housekeeping on an annual basis.

The DCDCIS requires the majority of pavement area to be treated in detention ponds. Side slopes in developments are covered with an erosion control mat and are required to be maintained by the property owner. Construction activities are covered under the erosion control requirements on the site improvement permit.

No fleet maintenance or park or open space is included in the Johnson Lane Carson Urbanized Area.

VI.F.2 Decision process. The permittee must document the decision process for the development of a pollution prevention/good housekeeping program for municipal operations. The rationale statement must address both the overall pollution prevention/good housekeeping program and the individual BMP's, measurable goal, and responsible persons for the program. The rational statement must include at a minimum:

VI.F.2.a The permittee's operation and maintenance program to prevent or reduce pollutant runoff from the permittee's municipal operations. The permittee's program must specifically list the municipal operations that are impacted by this operation and maintenance program, The permittee must also include a list of industrial facilities the permittee own or operate that are subject to the Divisions Multi-Sector General Permit (MSGP) or individual MPDES permits for discharges of stormwater associated with industrial activity that ultimately discharge to the permittee's MS4. Include the Division permit number or a copy of the Industrial NOI form for each facility.

The decision process for the development of a pollution prevention/good housekeeping program for municipal operations has been ongoing through the years of maintaining the stormwater facilities in Douglas County. County staff are trained in the various areas that they work. Good housekeeping is a part of general training for County employees. Utility operators receive ongoing training on safety and certification self-training which includes good housekeeping/pollution prevention as a part of the certification process. Water

service purveyors are inspected annually for sanitary surveys on each water system and good housekeeping is one of the elements of the survey. Housekeeping is an inspection element of the potable water systems and sewer system preventative maintenance program performed by the utility department on an ongoing weekly, monthly, quarterly, semi-annual and annual basis.

During repair of County facilities, the employees are aware that erosion control measures are needed in certain repair situations and use BMP's while maintaining County systems. In house training is ongoing with regards to erosion control measures on each site specific project. Each site is evaluated with regards to sensitivity to erosion.

The Douglas County Road department has an annual inspection and maintenance program for all of the drop inlets and stormdrain facilities in the public right-of-way. All inlets are inspected and hydrovaccuumed if needed. A report that may include pictures is developed after each maintenance event. So far the annual maintenance has been sufficient and more often maintenance has not been necessary.

VI.F.2.b. Any employee training program the permittee will use to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances and stormwater system maintenance. Describe any existing, available materials the permittee plans to use. Describe how this training program will be coordinated with the outreach programs developed for the public information minimum measure and the illicit discharge measure.

Douglas County employees involved with maintenance and repair of County parks, utilities and roads are trained and inspected on their good housekeeping procedures as a part of their job performance. Good housekeeping is a goal of management and a safe workforce and is included in job descriptions for employees involved in these activities. The County newsletter may include articles on good housekeeping and pollution prevention. Links to the EPA website will be included in the newsletter so that employees can get more information as needed for their jobs.

No fleet maintenance occurs in the JLSWMP area and there are no parks in this area.

VI.F.2.c The permittee's program description must specifically address the following areas:

VI.F.2.c.i Maintenance activities, maintenance schedules, and long-term inspection procedures for controls to reduce floatables and other pollutants to the permittee's MS4. Controls for mitigating the discharge of pollutants from roads

The measurable goal for this element of the plan is to continue to follow the existing erosion control measures and permitting program existing in the Douglas County Design Manual, Master Plan and Title 20. Floatables can be reduced by good housekeeping on construction sites and after development by good housekeeping.

Douglas County maintains roads in the JLSWMP by road sweeping, drop inlet and culvert cleaning on an annual basis. No other municipal operations such as salt storage, fuel stations, vehicle maintenance etc. occur in the JLSWMP area.

VI.F.2.c.ii Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yard, waste transfer stations, fleet maintenance shops with outdoor storage areas, and salt/sand/storage locations and snow disposal areas the permittee operates

The road department is responsible for maintaining roads in Douglas County. This includes the annual stormwater drainage facility inspection and maintenance. The Road Department either contracts this activity out to a company with hydrovacuum trucks, or borrows this type of truck and does the maintenance. The Douglas County Public Works Department is ultimately responsible for this element.

VI.F.2.c.ii.5 Procedures to ensure that proper disposal of waste removed from the permittee's MS4 and the permittee's municipal operations, including dredging spoil, accumulated sediments, floatables, and other debris.

The contractor responsible for maintaining the drop inlets and oil/water separator is required by contract to dispose of the waste collected during the maintenance in a proper approved waste disposal facility.

VI.F.2.c.ii.6 The person responsible for the overall management and implementation of the pollution and prevention/good housekeeping program is the Public Works Department and particularly the Road Department.

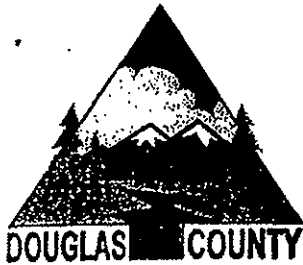
VI.F.2.c.ii.7 Douglas County will determine success as maintaining the roads in the JLSWMP area at least annually in a proper manner.

Monitoring

The JLSWMP does not include any provisions for monitoring as there is no outfall into the Carson River. Discharges in this area are considered non-point source. Any samples taken of illicit discharges will be representative of the discharge and analyzed by procedures set forth in 40 CFR Part 136 and submitted with the annual report on a Discharge Monitoring Report.

Attachment A

Notice of Intent



COMMUNITY DEVELOPMENT

1594 Esmeralda Avenue, Minden, Nevada 89423

Bob Nunes
DIRECTOR

775-782-9005
775-782-9010
FAX: 775-782-9007

Planning Division
Engineering Division
Building Division
Regional Transportation
Water/Sewer Utility
Road Maintenance
Code Enforcement

March 11, 2003

Clifford M. Lawson
Staff II Associate Engineer
Nevada Division of Environmental Protection
333 W. Nye Lane
West Building, Room 129
Carson City, NV 89706-0866

RE: Douglas County Notice of Intent -- Phase II NPDES Storm Water Permit

Dear Mr. Lawson:

Enclosed is Douglas County's Notice of Intent and description of our proposed storm water management program for the NPDES Phase II Storm Water Permit.

Please contact me at 782-6239 if you have any questions.

Sincerely,

Ronald J. Roman, P.E.
Associate Engineer

Enclosure

C: Carl Ruschmeyer, Engineering Manager/County Engineer
Bob Nunes, Director Community Development

Notice of Intent (NOI)

For

**Storm Water Discharges from Small Municipal Separate Storm Sewer Systems
under a National Pollutant Discharge Elimination System (NPDES) General Permit**

Submission of this Notice of Intent constitutes notice that the party identified in Section 1 of this form intends to be authorized by a NPDES permit issued for storm water discharges from Small Municipal Separate Storm Sewer Systems in Nevada. Submission of this Notice of Intent also constitutes notice that the party identified in Section 1 of this form meets the eligibility requirements in the Nevada General Permit NVS040000, understands that continued authorization to discharge is contingent on maintaining permit eligibility, and that implementation of the Storm Water Management Program required under Section 4 of the general permit will begin at the time the Nevada Division of Environmental Protection receives the NOI and Filing Fee.

The Notice(s) of Intent must be signed in accordance with Part 6.7 of General Permit NVS040000 and must include the following information:

Section 1 Information on the Permittee:

Name of the permittees municipal entity/tribe/state agency/federal agency:

Douglas County

Mailing Address

P.O. Box 218

Minden, NV 89423

Street 1594 Esmeralda Avenue

City Minden State NV Zip Code 89423

Contact Name Carl Ruschmeyer, Engineering Manager/County Engineer

Telephone Number 775-782-6227

Permittee type:

Federal -

State -

Other - County

Section 2 Information on the Municipal Separate Storm Sewer System:

List the Urbanized Area or Core Municipality (if the permittees are not located in an Urbanized Area) where the permittees' system is located.

Portion of Carson Area Metropolitan Planning Organization - see attached Figure.

List the name of the permittees' organization, or county (ies) where the permittees MS4 is located.

Douglas County, Nevada

List the latitude and longitude of an approximate center of the permittees MS4.

Clear Creek Area: latitude 39° 07' north, longitude 119° 47' west

Johnson Lane Area: latitude 39° 02' 30" north, longitude 119° 44' west

List the name of the major receiving water(s).

Carson River

Are any of the permittees receiving waters are on the latest CWA §303(d) list of impaired waters.

Yes - **Carson River**

No -

If the permittee have discharges to 303(d) waters, provide a certification that the permittees SWMP complies with the requirements of Part 3.1 of General Permit NVS040000.

Storm water runoff discharges to the Carson River. The Carson River is listed on the State of Nevada 2002 303(d) Impaired Waters List. The Carson River reach from Cradlebaugh Bridge to Mexican Ditch Gage (NV08-CR-08) is in the vicinity of the stormwater management area. The 303(d) list for this reach includes total iron,

temperature, total phosphorus, total suspended solids, and turbidity. The Storm Water Management Plan (SWMP) described in Section 4 will describe the best management practices that will be implemented to control the discharge of the 2002 303(d) list pollutants.

Is any portion of the MS4 located on Indian Country lands?

Yes -
No - No

If the permittees are relying on another governmental entity regulated under the storm water regulations (40 CFR 122.26 & 122.32) to satisfy one or more of the permittees' permit obligations (see Part 4.4), list the identity of that entity (ies) and the element(s) they will be implementing.

Carson City will be implementing all elements for areas within the Carson City limits. Indian Hills General Improvement District will be implementing all elements for areas within the boundaries of the Improvement District.

Provide a summary of the information on the permittees' chosen best management practices (BMPs).

The SWMP will identify structural and non-structural BMPs that are appropriate for the County to minimize water quality impacts.

Provide a summary of the anticipated measurable goals for each of the storm water minimum control measures in Part 4.2 of the permit.

See Attached

List the permittees estimated timeframe for implementing each of the BMPs.

See Attached

List person or persons responsible for implementing or coordinating the permittees' SWMP.

Bob Nunes, Director Community Development

Carl Ruschmeyer, Engineering Manager/County Engineer

Signature: 

Date: 2/10/03

The applicants are to submit the NOI, signed in accordance with the signatory requirements of Section 6.7 of the permit, to the Division at the following address:

Stormwater Coordinator
Bureau of Water Pollution Control
Nevada Division of Environmental Protection
333 West Nye Lane
Carson City, NV 89706-0851

Public Education and Outreach

Description: The NPDES Phase II Final Rule requires the operator to implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of storm water discharges on local water bodies and the steps that can be taken to reduce storm water pollution. The operator also establishes measurable goals.

Key Public Education and Outreach Components

1. **Evaluate Partnerships**
Evaluate partnerships with northern Nevada governmental entities to utilize existing programs.
2. **Utilize Existing or Develop New Educational Materials**
Identify materials relevant to Douglas County.
3. **Web Site**
Develop a web site that is part of the Douglas County web site.

Component	Measurable Goal	Implementation Date
1. Evaluate Partnerships		2004
2. Web Site	Operational Web Site	2005

Public Involvement and Participation

Description: The NPDES Phase II Final Rule requires that the operator document the decision process for the development of a public involvement and participation program.

Key Public Involvement and Participation Components

1. **Planning Commission Hearing**
Present the County's SWMP to the Douglas County Planning Commission and solicit input.
2. **Report Results**
Present the County's SWMP to the Board of County Commissioners and solicit input.

Component	Measurable Goal	Implementation Date
1. Planning Commission Hearing	Commission Hearing	2004
2. Board of County Commission Hearing	Board Hearing	2005

Illicit Discharge Detection and Elimination

Description: The NDPES Phase II Final Rule requires the operator to prepare the following:

- Storm sewer system map.
- Ordinances or other regulatory mechanism to prohibit non-storm water discharges into the system and develop enforcement procedures.
- A plan to detect illegal dumping.
- A plan to educate public employees and the general public about the hazards of improper disposal of wastes.

Illicit Discharge Detection and Elimination Key Components

1. **Mapping**
Complete storm drain mapping.
2. **Regulatory**
Adopt ordinances for regulation of illicit discharge detection and elimination program.
3. **Training**
Provide training for staff on illicit discharge detection and elimination policies and procedures.
4. **Education and Public Outreach**
Develop information for the public and industries on proper use, storage and disposal of materials.

Component	Measurable Goal	Implementation Date
1. Mapping	Complete System Map	2004
2. Regulatory	Adopt Ordinance	2005
3. Training	Train Staff	2005
4. Education & Outreach	Develop Information	2005

Construction Site Runoff Control

Description: The NPDES Phase II Final Rule requires the operator to prepare the following:

- Ordinance requiring the implementation of erosion and sediment control on applicable construction sites.
- Procedures for site plan review of construction plans.
- Procedures for site inspection and enforcement of control measures.
- Sanctions to ensure compliance.

Construction Site Runoff Control Key Components

- 1. Regulatory**
Review County Code and if needed update Code to require proper erosion and sediment controls.
- 2. Site Plan Review**
Review County procedure for construction site plan review and permits.
- 3. Site Inspections**
Review County permit inspection procedures and update if needed.
- 4. Penalties**
Review County Code and if needed adopt ordinance or other regulatory mechanism to enforce construction site control measures.

Component	Measurable Goal	Implementation Date
1. Regulatory	Adopt Ordinance	2005
2. Site Plan Review	Incorporate in Permit Review Process	2005
3. Site Inspections	Site Inspections at Start of Construction	2006
4. Penalties	Adopt Ordinance	2006

Post-Construction Runoff Control

Post Construction Runoff Control Key Components

Description: The NPDES Phase II Final Rule requires the operator adopt an ordinance that requires the implementation of post-construction runoff controls and ensure adequate long-term operation and maintenance of controls.

1. **Identify Best Management Practices**
Identify structural and non-structural best management practices that are appropriate for the County plan area to minimize water quality impacts.
2. **Develop Ordinance**
Develop policies and ordinances to ensure long-term maintenance and operation of BMP's.

Component	Measurable Goal	Implementation Date
1. Identify BMP's	List of BMP's	2005
2. Ordinance	Adopt Ordinance	2006

Pollution Prevention/Good Housekeeping for Municipal Operations

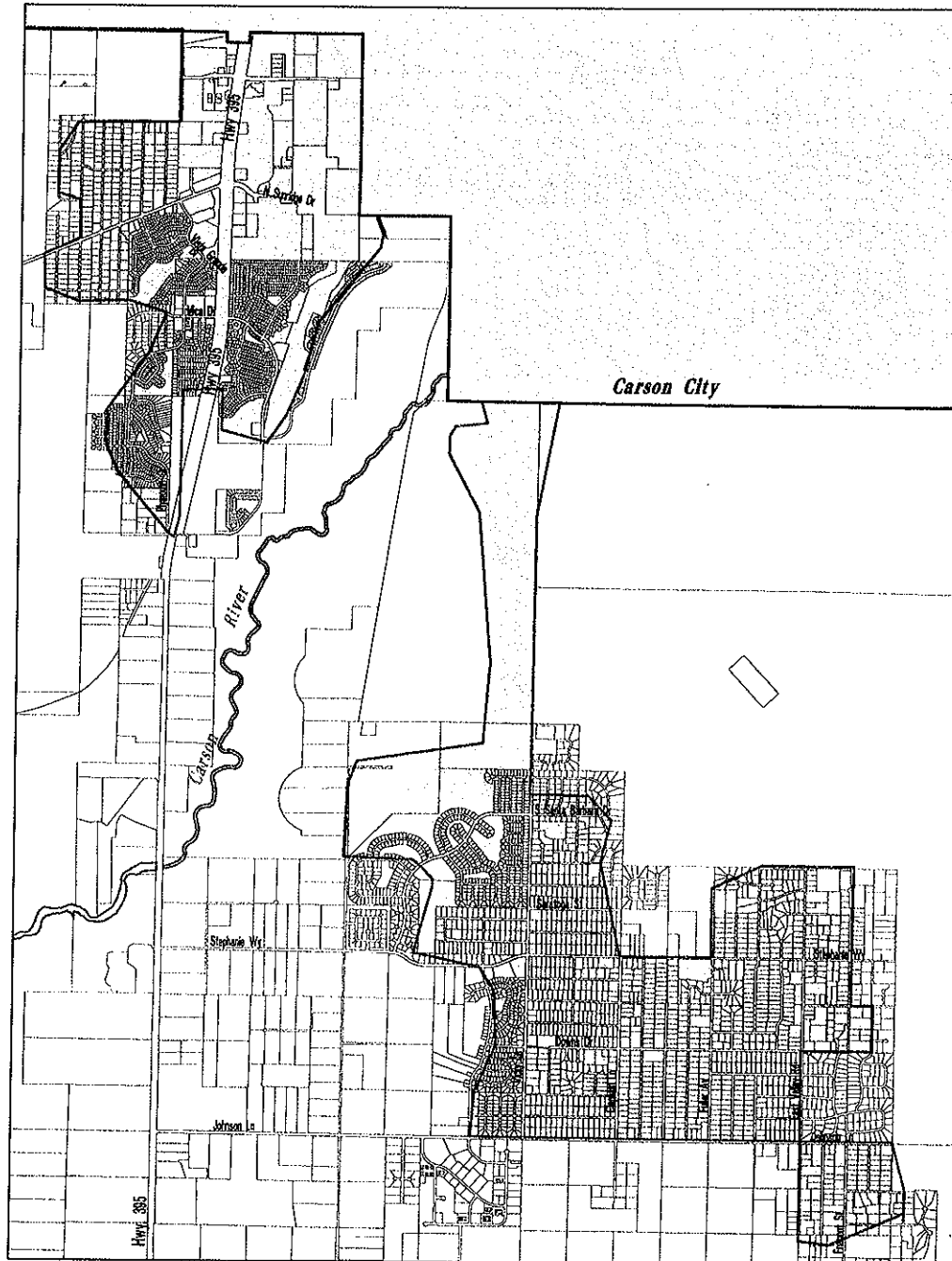
Description: The NPDES Phase II Final Rule requires the operator to develop and implement an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system.

Pollution Prevention/Good Housekeeping Key Components


1. **Develop Maintenance Activities**
Identify maintenance activities for catch basin cleaning, ditch cleaning, drain line cleaning and cleaning of storm water treatment structures.
2. **Develop Maintenance Schedules**
Prepare maintenance schedules for catch basin cleaning, ditch cleaning, drain line cleaning and cleaning of storm water treatment structures.
3. **Train Staff**
Provide training to County staff on maintenance activities and schedules.

Component	Measurable Goal	Implementation Date
1. Maintenance Activities	Document Maintenance	2004
2. Maintenance Schedule	Prepare Schedule	2004
3. Training	Train Staff	2005


DOUGLAS COUNTY STORMWATER MANAGEMENT AREA



DOUGLAS COUNTY
Multi-Agency Geographic Information Center
Scale: 1" = 5,000'
Date: 05/05/10
RR21233

 Carson City MPO

 Indian Hills GID

 Sierra Estates GID

The data contained herein has been compiled on a geographic information system for the use of Douglas County. The data does not represent survey definition and should not be construed as a replacement for the authoritative source, plat maps, deeds, resurveys, etc. No liability is assumed by Douglas County or MAGIC as to the sufficiency or accuracy of the data.

Attachment B

Public Comment and Responses

**Douglas County Clear Creek SWMP
Comments or Revisions from NDEP, Bureau of Water Quality Planning
12/5/11**

1. Introduction, page 1, starting in the middle of the 2nd paragraph:

- a. "TSS, turbidity and TP are ~~not on the list~~ delisted because ~~as they have~~ TMDL's have been adopted for the section of the Carson River pertinent to Clear Creek discharges, specifically from Cradlebaugh Bridge to Mexican Dam Gage." However, according to Attachment 2 (delisted waters) of the 2006 303(d) List, the standards for TP and turbidity between Cradlebaugh Bridge and the Mexican Ditch Gage are not being met.

Response: Wording changed to add clarity.

- b. "Water quality standards for the Carson River at Mexican Ditch Gage ~~and Clear Creek~~ can be found at NAC 445A.154.

Response: Wording changed to add clarity.

2. Section II, page 2, sentence before table

"The water quality standards for Class B waters are found in NAC 445A.125 and are listed below:"

Response: Comment Noted.

3. Page 3, end of 1st paragraph

"TSS, TP and turbidity have TMDL's established which is supposed to bring the river into compliance with the water quality standards."

Would replace this sentence with the following:

The TMDL's established for TSS, TP and turbidity are targets and are meant to be tools for tracking water quality improvement as projects and BMPs are implemented to reduce nonpoint source pollutant loads discharged into the river.

Response: Wording changed to add clarity.

4. Page 3, under item II.B

Remove the statement: "Douglas County is in compliance with the TMDL's."

TMDL's apply to the Carson River and not Clear Creek.

Response: Wording changed to add clarity. TMDL's apply to the discharges in the Carson River watershed including tributaries as identified in the MS4 permit.

5. Sections VI.A and VI.B, page 5 through the top of p. 10

Funds received from CWA 319 funds cannot be used to implement NPDES permit requirements. Therefore the Minimum Control Measures (MCMs) identified by Douglas County cannot be activities implemented by the Carson Water Subconservancy District (CWSD) that are funded through NDEP by the 319 program.

Once the MCMs have been clearly identified, the County can cite CWSD 319 activities as above and beyond the minimum requirements.

Response: This comment is sincerely appreciated. The SWMP has been rewritten to make sure that the minimum control measures are clearly identified as being completed by Douglas County and anything that is done by the Carson Water Subconservancy is above and beyond the minimum and is not required by the MS4 permit.

Douglas County Commissioners

Comments from the Carson Valley Conservation District – Clear Creek Stormwater Management Plan and the Johnson Lane Stormwater Management Plan

- 1> CAMPO? Plans show the Carson Area Metropolitan Policy Organization as a co-sponsor of the Plans. We note that CAMPO has not approved the plans, does not have the plans on its agenda and the Plans have not fulfilled the CAMPO Public Participation Plan.

We wish it did. The CAMPO Public Participation Plan calls for Solicited Input as follows: "Solicit the participation of citizens and interested parties in the planning process and provide a reasonable opportunity to comment on proposed planning documents and projects. CAMPO staff will create Advisory Workgroups specific to the adoption of ... planning documents..."

We believe this is a more appropriate approach to engaging the public in these plans.

Response: The DRAFT SWMP was placed on the County website for review and comment by the public. Public comment was accepted at the 12/15/2011 Board of County Commissioners' meeting. The plan is no longer identified as the CAMPO plan but rather as the Carson Urbanized Area Plan as referenced in the MS4 permit.

- 2> Relative to the Clear Creek Stormwater Management Plan, we request the area of the plan incorporate the Clear Creek Watershed in Douglas County (as the Carson City portion has been included in the Carson City Clear Creek Stormwater Management Plan).

This would specifically incorporate the Clear Creek Tahoe development within the scope of the plan.

Response: The mapped area remains the same as required by the MS4 Permit. The SWMP does identify that Site Improvement Permits which are abandoned are a County wide issue that the District Attorney's office is working on. This issue is best dealt with on a Countywide basis and not in this plan.

- 3> Each plan should have its own plan map and reflect Clear Creek and the Carson River. Each plan's map should trace the storm water drainage from origination to its discharge in Clear Creek and/or the Carson River.

The Clear Creek Plan map should clearly recognize the planning area responsibilities of Douglas County, Indian Hills Improvement District and the Sierra Estates GID.

Response: The map has been changed to add the Blue line stream for Clear Creek.

- 4> The plans need to incorporate consideration of "demonstrating not to adversely impact downstream properties" (Division 6.1.4).

Standards which address drainage requirements may not be adequate to protect downstream channels, particularly from channel erosion whether evident prior to development or not.

"Downstream properties shall not be unreasonably burdened with increased flow rates, negative impacts, or unreasonable changes in manner of flow from upstream properties" (6.1.4). The plan needs to acknowledge that the county has a responsibility to maintain storm water drainage that will not burden downstream properties in consideration of the downstream properties not blocking natural drainages or existing runoff through their site and their acceptance of runoff from upstream properties.

Response: Implementation of the Design Manual and Title 20 for drainage are part of the County process and are done to the Maximum Extent Practicable on every project.

Johnson Lane Storm Drain Facilities



File Name: JPL_StormDrain_Facilities.dwg

Print Date: 12/22/2011

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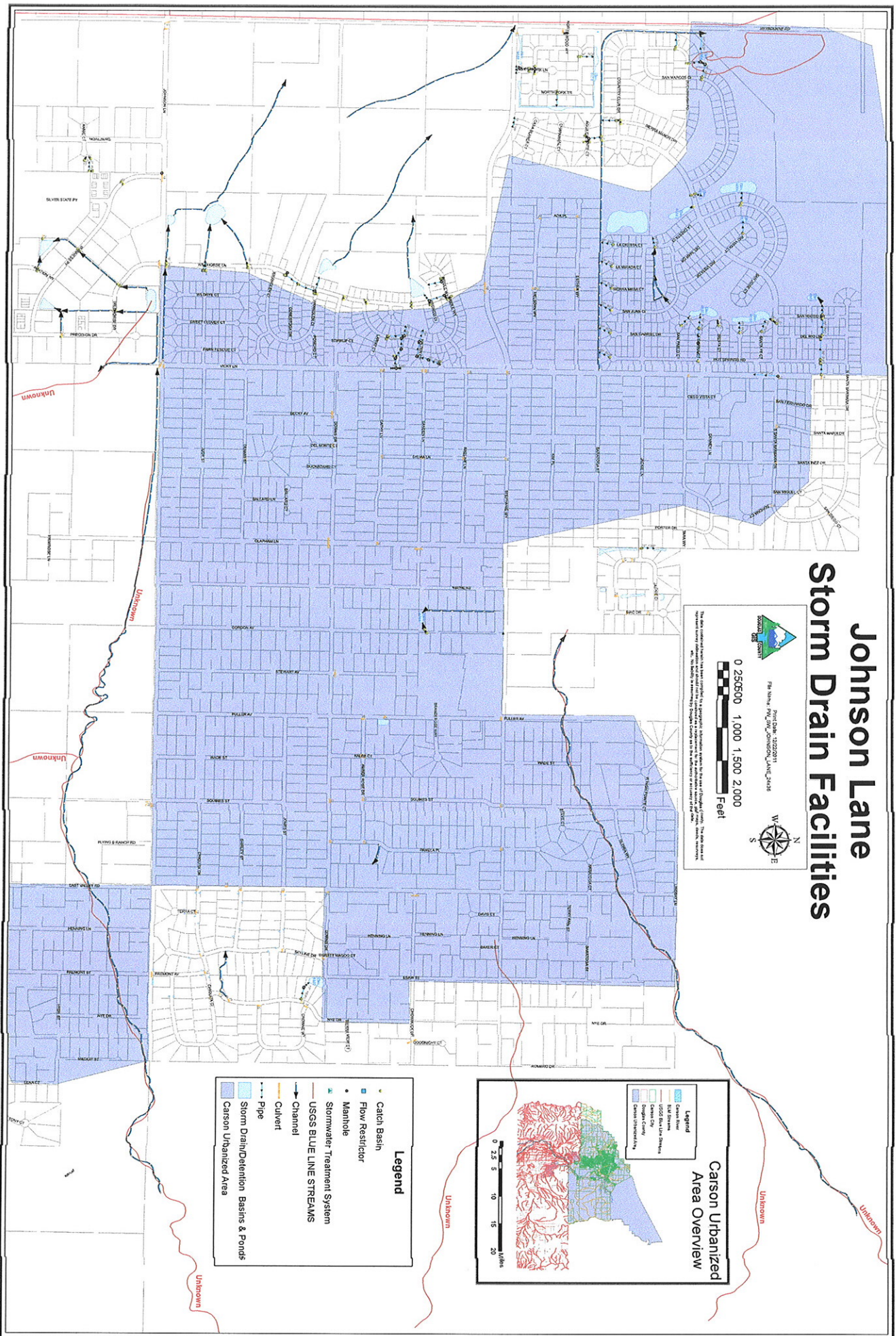
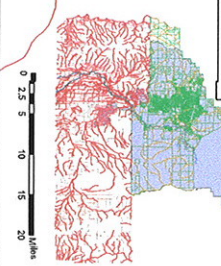


This map was prepared by the City of Carson, California, for the purpose of providing information to the public. It is not intended to be used for any other purpose. The City of Carson is not responsible for any errors or omissions on this map. It is the user's responsibility to verify the accuracy of the information presented on this map.

Legend

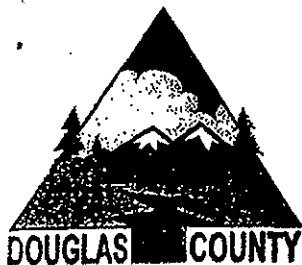
- Catch Basin
- Flow Restrictor
- Manhole
- Stormwater Treatment System
- USGS BLUE LINE STREAMS
- Channel
- Culvert
- Pipe
- Storm Drain/Retention Basins & Ponds
- Carson Urbanized Area

Carson Urbanized Area Overview



Attachment A

Notice of Intent



COMMUNITY DEVELOPMENT

1594 Esmeralda Avenue, Minden, Nevada 89423

Bob Nunes
DIRECTOR

775-782-9005
775-782-9010
FAX: 775-782-9007

Planning Division
Engineering Division
Building Division
Regional Transportation
Water/Sewer Utility
Road Maintenance
Code Enforcement

March 11, 2003

Clifford M. Lawson
Staff II Associate Engineer
Nevada Division of Environmental Protection
333 W. Nye Lane
West Building, Room 129
Carson City, NV 89706-0866

RE: Douglas County Notice of Intent -- Phase II NPDES Storm Water Permit

Dear Mr. Lawson:

Enclosed is Douglas County's Notice of Intent and description of our proposed storm water management program for the NPDES Phase II Storm Water Permit.

Please contact me at 782-6239 if you have any questions.

Sincerely,

Ronald J. Roman, P.E.
Associate Engineer

Enclosure

C: Carl Ruschmeyer, Engineering Manager/County Engineer
Bob Nunes, Director Community Development

Notice of Intent (NOI)

For

Storm Water Discharges from Small Municipal Separate Storm Sewer Systems under a National Pollutant Discharge Elimination System (NPDES) General Permit

Submission of this Notice of Intent constitutes notice that the party identified in Section I of this form intends to be authorized by a NPDES permit issued for storm water discharges from Small Municipal Separate Storm Sewer Systems in Nevada. Submission of this Notice of Intent also constitutes notice that the party identified in Section I of this form meets the eligibility requirements in the Nevada General Permit NVS040000, understands that continued authorization to discharge is contingent on maintaining permit eligibility, and that implementation of the Storm Water Management Program required under Section 4 of the general permit will begin at the time the Nevada Division of Environmental Protection receives the NOI and Filing Fee.

The Notice(s) of Intent must be signed in accordance with Part 6.7 of General Permit NVS040000 and must include the following information:

Section I **Information on the Permittee:**

Name of the permittees municipal entity/tribe/state agency/federal agency:
Douglas County

Mailing Address

P.O. Box 218

Minden, NV 89423

Street 1594 Esmeralda Avenue

City Minden State NV Zip Code 89423

Contact Name Carl Ruschmeyer, Engineering Manager/County Engineer

Telephone Number 775-782-6227

Permittee type:

Federal -

State -

Other - County

Section 2 Information on the Municipal Separate Storm Sewer System:

List the Urbanized Area or Core Municipality (if the permittees are not located in an Urbanized Area) where the permittees' system is located.

Portion of Carson Area Metropolitan Planning Organization - see attached Figure.

List the name of the permittees' organization, or county (ies) where the permittees MS4 is located.

Douglas County, Nevada

List the latitude and longitude of an approximate center of the permittees MS4.

Clear Creek Area: latitude 39° 07' north, longitude 119° 47' west

Johnson Lane Area: latitude 39° 02' 30" north, longitude 119° 44' west

List the name of the major receiving water(s).

Carson River

Are any of the permittees receiving waters are on the latest CWA §303(d) list of impaired waters.

Yes - **Carson River**

No -

If the permittee have discharges to 303(d) waters, provide a certification that the permittees SWMP complies with the requirements of Part 3.1 of General Permit NVS040000.

Storm water runoff discharges to the Carson River. The Carson River is listed on the State of Nevada 2002 303(d) Impaired Waters List. The Carson River reach from Cradlebaugh Bridge to Mexican Ditch Gage (NV08-CR-08) is in the vicinity of the stormwater management area. The 303(d) list for this reach includes total iron,

temperature, total phosphorus, total suspended solids, and turbidity. The Storm Water Management Plan (SWMP) described in Section 4 will describe the best management practices that will be implemented to control the discharge of the 2002 303(d) list pollutants.

Is any portion of the MS4 located on Indian Country lands?

Yes -
No - No

If the permittees are relying on another governmental entity regulated under the storm water regulations (40 CFR 122.26 & 122.32) to satisfy one or more of the permittees' permit obligations (see Part 4.4), list the identity of that entity (ies) and the element(s) they will be implementing.

Carson City will be implementing all elements for areas within the Carson City limits. Indian Hills General Improvement District will be implementing all elements for areas within the boundaries of the Improvement District.

Provide a summary of the information on the permittees' chosen best management practices (BMPs).

The SWMP will identify structural and non-structural BMPs that are appropriate for the County to minimize water quality impacts.

Provide a summary of the anticipated measurable goals for each of the storm water minimum control measures in Part 4.2 of the permit.

See Attached

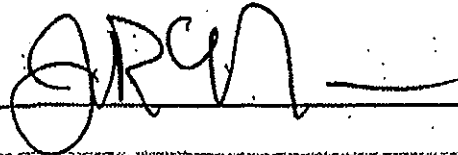
List the permittees estimated timeframe for implementing each of the BMPs.

See Attached

List person or persons responsible for implementing or coordinating the permittees' SWMP.

Bob Nunes, Director Community Development

Carl Ruschmeyer, Engineering Manager/County Engineer

Signature: 

Date: 3/10/03

The applicants are to submit the NOI, signed in accordance with the signatory requirements of Section 6.7 of the permit, to the Division at the following address:

Stormwater Coordinator
Bureau of Water Pollution Control
Nevada Division of Environmental Protection
333 West Nye Lane
Carson City, NV 89706-0851

Public Education and Outreach

Description: The NPDES Phase II Final Rule requires the operator to implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of storm water discharges on local water bodies and the steps that can be taken to reduce storm water pollution. The operator also establishes measurable goals.

Key Public Education and Outreach Components

1. **Evaluate Partnerships**
Evaluate partnerships with northern Nevada governmental entities to utilize existing programs.
2. **Utilize Existing or Develop New Educational Materials**
Identify materials relevant to Douglas County.
3. **Web Site**
Develop a web site that is part of the Douglas County web site.

Component	Measurable Goal	Implementation Date
1. Evaluate Partnerships		2004
2. Web Site	Operational Web Site	2005

Public Involvement and Participation

Description: The NDPES Phase II Final Rule requires that the operator document the decision process for the development of a public involvement and participation program.

Key Public Involvement and Participation Components

1. **Planning Commission Hearing**
Present the County's SWMP to the Douglas County Planning Commission and solicit input.
2. **Report Results**
Present the County's SWMP to the Board of County Commissioners and solicit input.

Component	Measurable Goal	Implementation Date
1. Planning Commission Hearing	Commission Hearing	2004
2. Board of County Commission Hearing	Board Hearing	2005

Illicit Discharge Detection and Elimination

Description: The NPDES Phase II Final Rule requires the operator to prepare the following:

- Storm sewer system map.
- Ordinances or other regulatory mechanism to prohibit non-storm water discharges into the system and develop enforcement procedures.
- A plan to detect illegal dumping.
- A plan to educate public employees and the general public about the hazards of improper disposal of wastes.

Illicit Discharge Detection and Elimination Key Components

1. **Mapping**
Complete storm drain mapping.
2. **Regulatory**
Adopt ordinances for regulation of illicit discharge detection and elimination program.
3. **Training**
Provide training for staff on illicit discharge detection and elimination policies and procedures.
4. **Education and Public Outreach**
Develop information for the public and industries on proper use, storage and disposal of materials.

Component	Measurable Goal	Implementation Date
1. Mapping	Complete System Map	2004
2. Regulatory	Adopt Ordinance	2005
3. Training	Train Staff	2005
4. Education & Outreach	Develop Information	2005

Construction Site Runoff Control

Description: The NPDES Phase II Final Rule requires the operator to prepare the following:

- Ordinance requiring the implementation of erosion and sediment control on applicable construction sites.
- Procedures for site plan review of construction plans.
- Procedures for site inspection and enforcement of control measures.
- Sanctions to ensure compliance.

Construction Site Runoff Control Key Components

- 1. Regulatory**
Review County Code and if needed update Code to require proper erosion and sediment controls.
- 2. Site Plan Review**
Review County procedure for construction site plan review and permits.
- 3. Site Inspections**
Review County permit inspection procedures and update if needed.
- 4. Penalties**
Review County Code and if needed adopt ordinance or other regulatory mechanism to enforce construction site control measures.

Component	Measurable Goal	Implementation Date
1. Regulatory	Adopt Ordinance	2005
2. Site Plan Review	Incorporate in Permit Review Process	2005
3. Site Inspections	Site Inspections at Start of Construction	2006
4. Penalties	Adopt Ordinance	2006

Post-Construction Runoff Control

Description: The NPDES Phase II Final Rule requires the operator adopt an ordinance that requires the implementation of post-construction runoff controls and ensure adequate long-term operation and maintenance of controls.

Post Construction Runoff Control Key Components

1. **Identify Best Management Practices**
Identify structural and non-structural best management practices that are appropriate for the County plan area to minimize water quality impacts.
2. **Develop Ordinance**
Develop policies and ordinances to ensure long-term maintenance and operation of BMP's.

Component	Measurable Goal	Implementation Date
1. Identify BMP's	List of BMP's	2006
2. Ordinance	Adopt Ordinance	2006

Pollution Prevention/Good Housekeeping for Municipal Operations

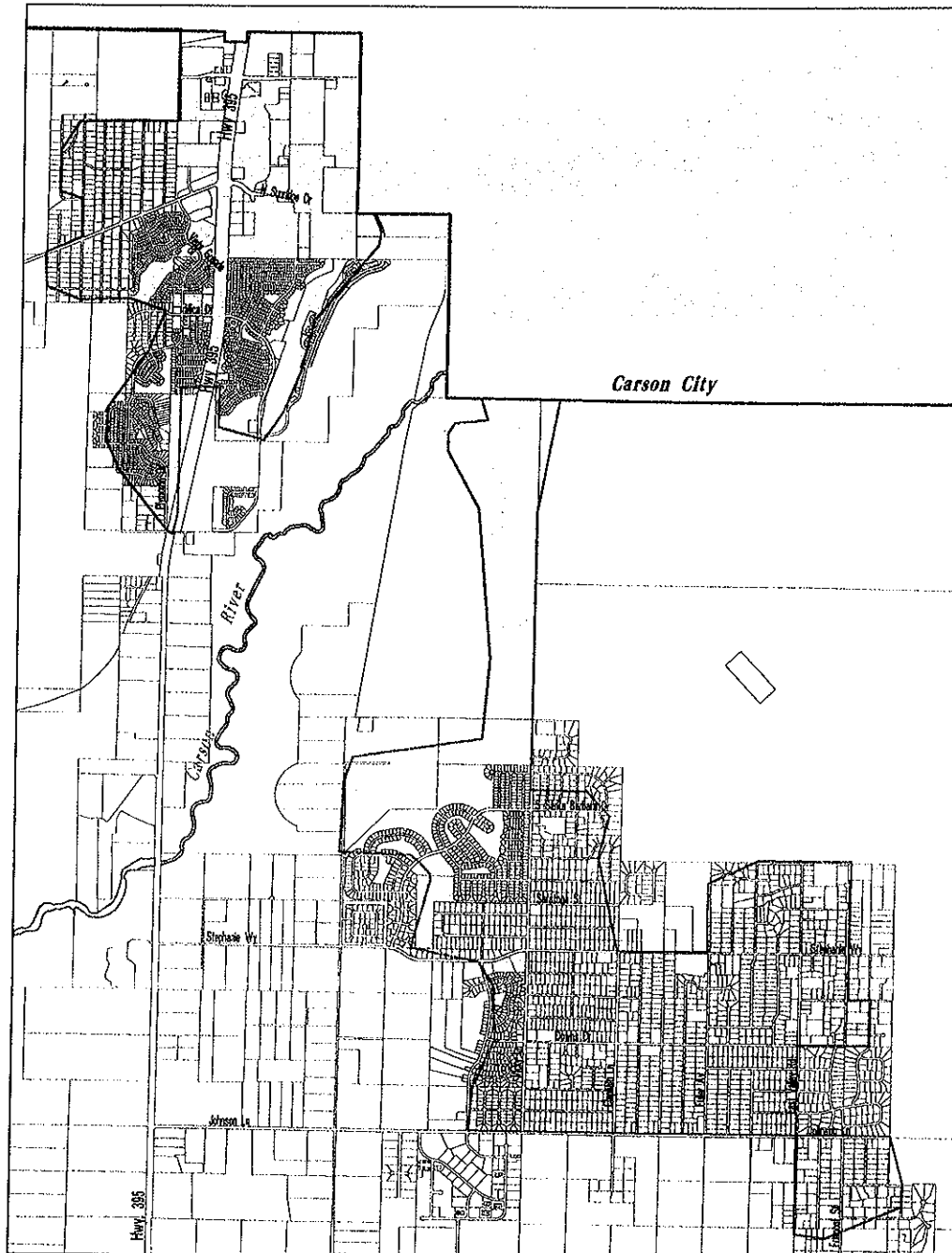
Description: The NPDES Phase II Final Rule requires the operator to develop and implement an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations into the storm sewer system.

Pollution Prevention/Good Housekeeping Key Components

1. **Develop Maintenance Activities**
Identify maintenance activities for catch basin cleaning, ditch cleaning, drain line cleaning and cleaning of storm water treatment structures.
2. **Develop Maintenance Schedules**
Prepare maintenance schedules for catch basin cleaning, ditch cleaning, drain line cleaning and cleaning of storm water treatment structures.
3. **Train Staff**
Provide training to County staff on maintenance activities and schedules.

Component	Measurable Goal	Implementation Date
1. Maintenance Activities	Document Maintenance	2004
2. Maintenance Schedule	Prepare Schedule	2004
3. Training	Train Staff	2005

DOUGLAS COUNTY STORMWATER MANAGEMENT AREA



DOUGLAS COUNTY
Multi-Agency Geographic Information Center
Scale: 1" = 5,000'
Date: 05/05/10
RR21233

Carson City MPO

Indian Hills GID

Sierra Estates GID

The data contained herein has been compiled on a geographic information system for the use of Douglas County. The data does not represent survey definition and should not be construed as a replacement for the authoritative source, plat maps, deeds, resurveys, etc. No liability is assumed by Douglas County or MAGIC as to the sufficiency or accuracy of the data.

Attachment B

Response to Public Comment

Attachment B

Response to Public Comment



Public Works Department

MEMORANDUM

To: Board of County Commissioners

From: Cathe Pool, PE

Subject: Response to Public Comment on the Clear Creek and Johnson Lane Stormwater Management Plans

Date: December 20, 2011

Public comments and responses are included in Attachment B to the above plans. Responses are provided as per direction provided by management. New maps will be provided at the meeting.

Douglas County Commissioners

Comments from the Carson Valley Conservation District – Clear Creek Stormwater Management Plan and the Johnson Lane Stormwater Management Plan

- 1> CAMPO? Plans show the Carson Area Metropolitan Policy Organization as a co-sponsor of the Plans. We note that CAMPO has not approved the plans, does not have the plans on its agenda and the Plans have not fulfilled the CAMPO Public Participation Plan.

We wish it did. The CAMPO Public Participation Plan calls for Solicited Input as follows: "Solicit the participation of citizens and interested parties in the planning process and provide a reasonable opportunity to comment on proposed planning documents and projects. CAMPO staff will create Advisory Workgroups specific to the adoption of ... planning documents..."

We believe this is a more appropriate approach to engaging the public in these plans.

Response: The DRAFT SWMP was placed on the County website for review and comment by the public. Public comment was accepted at the 12/15/2011 Board of County Commissioners' meeting. The plan is no longer identified as the CAMPO plan but rather as the Carson Urbanized Area Plan as referenced in the MS4 permit.

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This would specifically incorporate the Clear Creek Tahoe development within the scope of the plan.

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- 3> Each plan should have its own plan map and reflect Clear Creek and the Carson River. Each plan's map should trace the storm water drainage from origination to its discharge in Clear Creek and/or the Carson River.

The Clear Creek Plan map should clearly recognize the planning area responsibilities of Douglas County, Indian Hills Improvement District and the Sierra Estates GID.

Response: The map has been changed to add the Blue line stream for Clear Creek.

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Response: Implementation of the Design Manual and Title 20 for drainage are part of the County process and are done to the Maximum Extent Practicable on every project.

**Douglas County Clear Creek SWMP
Comments or Revisions from NDEP, Bureau of Water Quality Planning
12/5/11**

1. Introduction, page 1, starting in the middle of the 2nd paragraph:

- a. "TSS, turbidity and TP are ~~not on the list~~ delisted because ~~as they have~~ TMDL's have been adopted for the section of the Carson River pertinent to Clear Creek discharges, specifically from Cradlebaugh Bridge to Mexican Dam Gage." However, according to Attachment 2 (delisted waters) of the 2006 303(d) List, the standards for TP and turbidity between Cradlebaugh Bridge and the Mexican Ditch Gage are not being met.

Response: Wording changed to add clarity.

- b. "Water quality standards for the Carson River at Mexican Ditch Gage ~~and Clear Creek~~ can be found at NAC 445A.154.

Response: Wording changed to add clarity.

2. Section II, page 2, sentence before table

"The water quality standards for Class B waters are found in NAC 445A.125 and are listed below:"

Response: Comment Noted.

3. Page 3, end of 1st paragraph

"TSS, TP and turbidity have TMDL's established which is supposed to bring the river into compliance with the water quality standards."

Would replace this sentence with the following:

The TMDL's established for TSS, TP and turbidity are targets and are meant to be tools for tracking water quality improvement as projects and BMPs are implemented to reduce nonpoint source pollutant loads discharged into the river.

Response: Wording changed to add clarity.

4. Page 3, under item II.B

Remove the statement: "Douglas County is in compliance with the TMDL's."

TMDL's apply to the Carson River and not Clear Creek.

Response: Wording changed to add clarity. TMDL's apply to the discharges in the Carson River watershed including tributaries as identified in the MS4 permit.

5. Sections VI.A and VI.B, page 5 through the top of p. 10

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Once the MCMs have been clearly identified, the County can cite CWSD 319 activities as above and beyond the minimum requirements.

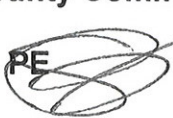
Response: This comment is sincerely appreciated. The SWMP has been rewritten to make sure that the minimum control measures are clearly identified as being completed by Douglas County and anything that is done by the Carson Water Subconservancy is above and beyond the minimum and is not required by the MS4 permit.



Public Works Department

MEMORANDUM

To: Board of County Commissioners

From: Cathe Pool, PE 

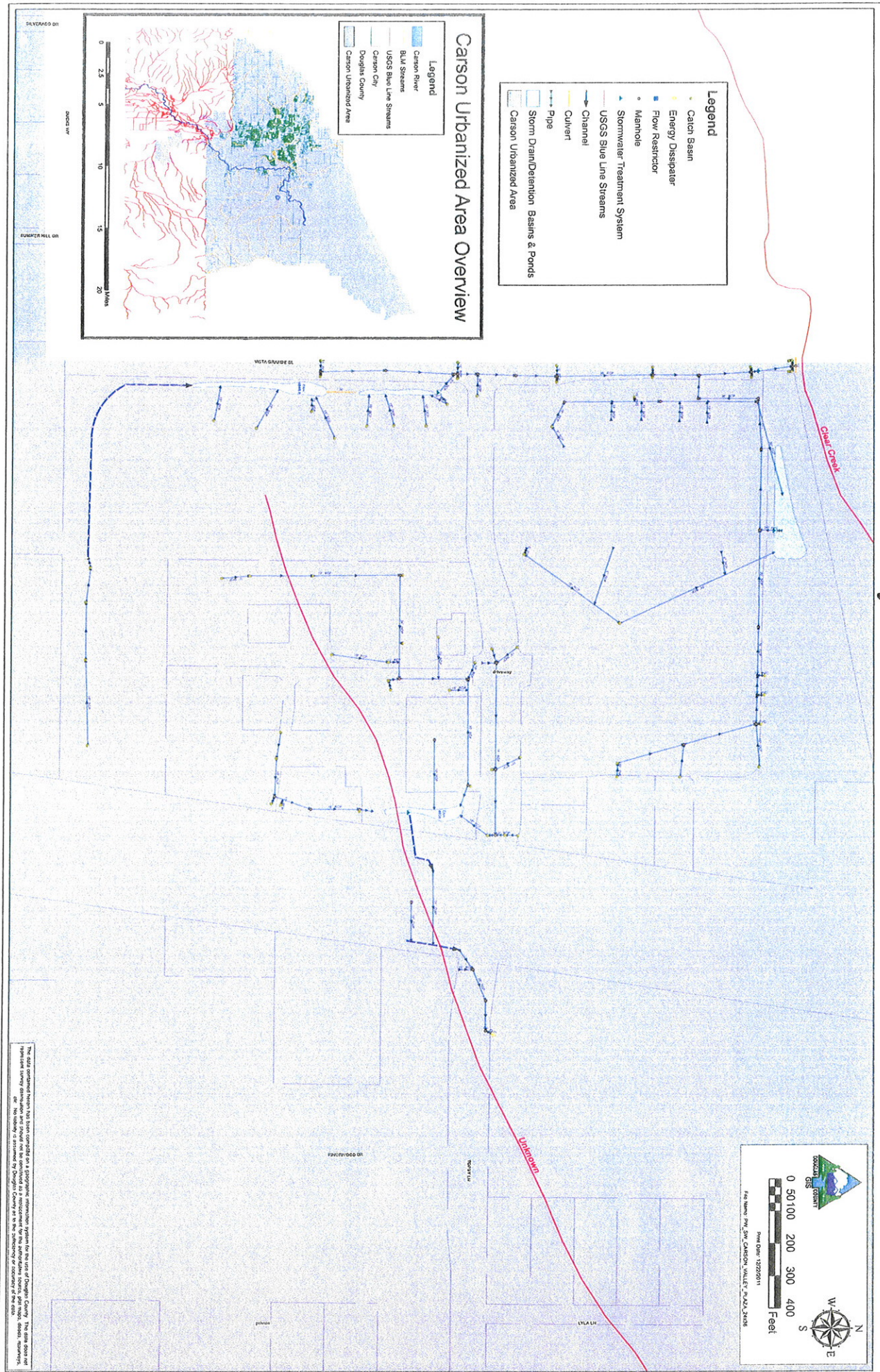
Subject: Revised Maps for the Clear Creek and Johnson Lane Stormwater Management Plans – Item 3h.

Date: December 29, 2011

The attached maps were revised to accommodate public comments received from the Board meeting on December 15, 2011. The maps were revised by GIS and were completed after the packets were distributed. Full size copies are available for review also.

201 DEC 29 PM 3:48

Carson Valley Plaza Storm Drain Facilities



Legend

- Catch Basin
- Energy Dissipater
- Flow Restrictor
- Manhole
- Stormwater Treatment System
- USGS Blue Line Streams
- Channel
- Culvert
- Pipe
- Storm Drain/Retention Basins & Ponds
- Carson Urbanized Area

Carson Urbanized Area Overview

Legend

- Carson River
- Blue Streams
- USGS Blue Line Streams
- Carson City
- Douglas County
- Carson Urbanized Area

0 2.5 5 10 15 20 Miles

Johnson Lane Storm Drain Facilities

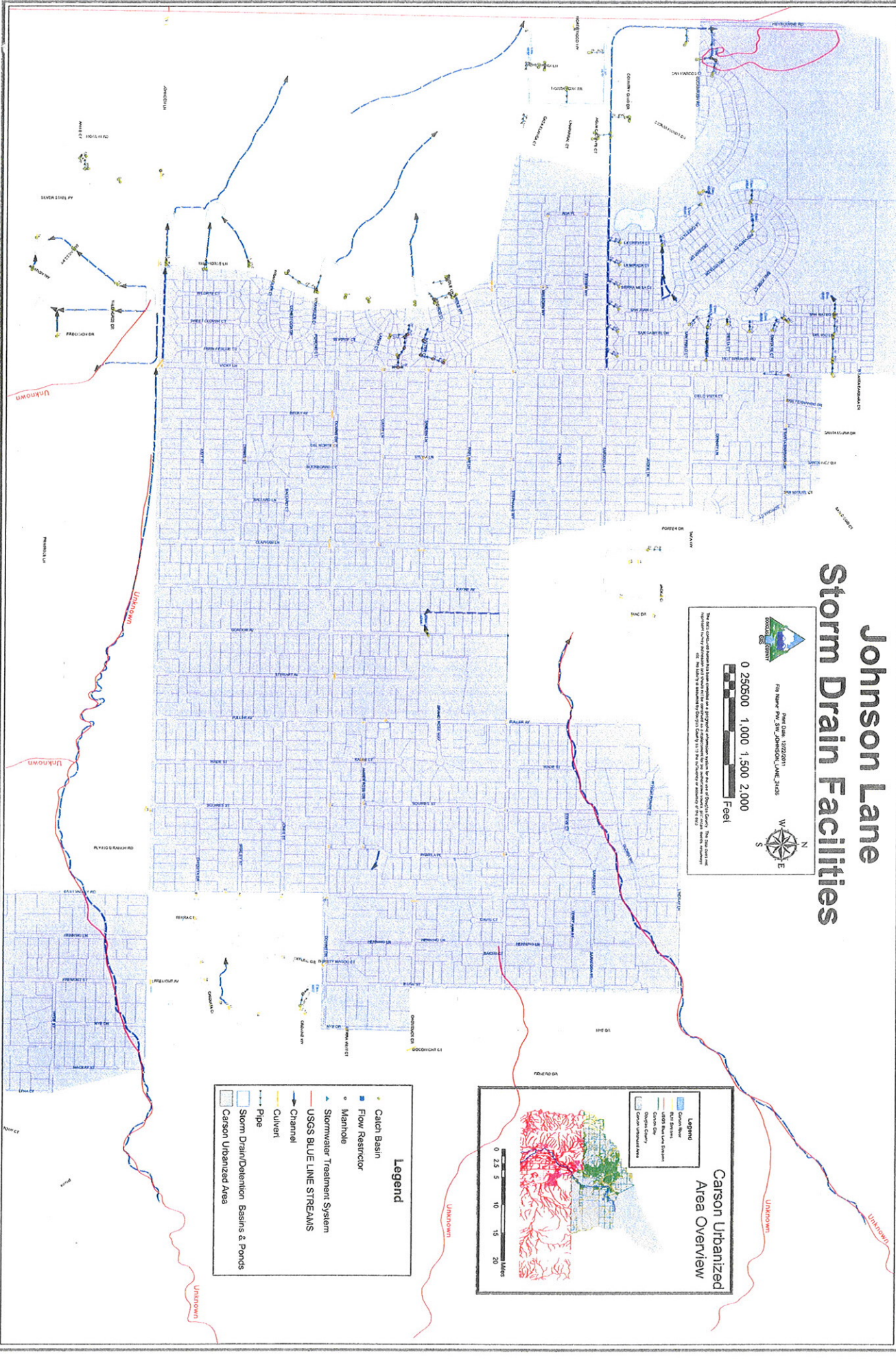
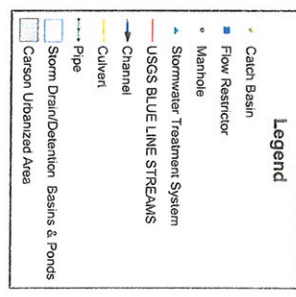
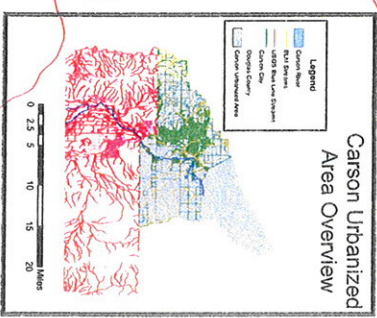


File Name: JLD_01022011
File Date: 12/22/2011

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The data contained herein is for informational purposes only and is not intended to be used for engineering or construction purposes. The City of Carson City is not responsible for any errors or omissions in this data. The data is provided as is, without warranty of any kind.





Public Works Department

MEMORANDUM

To: Board of County Commissioners

From: Cathe Pool, PE

Subject: Response to Comments from the Clear Creek Watershed Council-
Item 3H

Date: January 4, 2012

Comments from the Clear Creek Watershed Council were received on December 30, 2011. Staff responses are attached. Upon approval by the Board of County Commissioners, the Storm Water Management Plans and these comments and responses will be submitted to Nevada Division of Environmental Protection as required by the MS4 permit.



777 East William Street, Suite 110A
Carson City, NV 89701
775/887-7450, fax 775/887-7457

MEMO TO DOUGLAS COUNTY BOARD OF COMMISSIONERS
12/30/2011
CONTACT BRENDA HUNT, CLEAR CREEK WATERSHED COORDINATOR
CLEAR CREEK WATERSHED COUNCIL
775.887.9005

The Clear Creek Watershed Council (the Council) respectfully submits these comments in relation to the Douglas County Board of Commissioners Consent Agenda Item 3.h. These comments are in addition to the comments/concerns already presented to the Commission and Douglas County staff from Jean Stone, NDEP dated 12/5/2011.

The Clear Creek Watershed Council's mission is to protect, conserve, and restore the unique and valuable resource of Clear Creek and its watershed through collaboration, education, planning, and project implementation. The Clear Creek Watershed Council is comprised of landowners, concerned citizens, local, state, and tribal government staff, and natural resource managing agencies that share a common interest and responsibility to maintain the quality and health of the Clear Creek watershed. The goals of the council are to maintain a high level of water quality, protect healthy native fisheries and wildlife, minimize impacts of development and erosion, protect the riparian corridor, promote cultural and historical integrity, and encourage responsible access to public lands for passive recreation.

The Clear Creek Watershed Council has concerns with the currently proposed Storm Water Management Plan (SWMP) that is scheduled to be adopted January 5, 2012. These concerns relate to the six minimum control measures required to meet the reduction of pollutant discharge to the maximum extent practicable and suggestions outlined in the General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) and within the SWMP itself. The Council is in a unique position to help Douglas County to more effectively meet the General Permit conditions specifically related to, several minimum control measures (MCM), and other suggested items, as outlined in the NDEP Fact Sheet (revised June 2010) for the permit (Attachment A) and the draft Clear Creek SWMP, as suggested below:

Response:

Douglas County participates in the Clear Creek Watershed Council (CCWC) and appreciates the intent of the Council to provide measures above and beyond the Minimum Control Measures required by the MS4 General Permit. In order to ensure that 319 funds are available for the CCWC Douglas County would like to make it clear that no activity performed by the CCWC is required by the MS4 permit.

1. Public Education and Outreach:

The Council and its association with the Carson Water Subconservancy District (CWSD) have conducted outreach events, funded erosion control projects, and created outreach materials that have been and continue to be helpful to Douglas County in meeting the goals outlined in the permit regarding this MCM. Jean Stone's comments cautioned that the items that are

funded through 319 grants are ineligible to be used as efforts to meet the minimum permit requirements. However, the Council and CWSD are willing to work with Douglas County to develop public education and outreach efforts on this MCM of the SWMP that are over and above the requirements of the permit.

Response:

Douglas County appreciates this comment and is in complete agreement with the comment.

2. Public Participation/Involvement:

The Council is interested in providing input into the planning and monitoring of stormwater that is eventually discharged into Clear Creek. In light of that, the Council requests that the Commissioners:

- a. amend the proposed SWMP to form a "storm water management panel" as suggested by the plan in VI.B.2.d. This panel is suggested by the NDEP as a way to meet the MCM for Public Participation/Involvement outlined in the permit. The panel could formally review SWMP's and any proposed amendments, discuss stormwater management issue generally, and meet periodically with interested local parties, including the Watershed Council. The Council's membership, specifically the leadership committee, is currently made up of representatives from Carson City, NDEP, the Washoe Tribe, CWSD, and private citizens. Representatives from Nevada Division of Transportation (NDOT) have provided updates to the committee and over all Council membership regularly. Douglas County's representation on the committee has been sporadic and the Council welcomes more active staff representation. Given this membership, the Council leadership committee is happy to assist by providing representation on a stormwater management panel.

Response:

While the permit includes a stormwater panel as one potential way a permittee can meet the public participation MCM, it is not a requirement. Douglas County is not proposing the formation of a panel as a way to meet the MCM. Should NDEP form a stormwater management panel it would be considered above and beyond the MCM.

- b. include the Clear Creek Watershed Council as a target audience in the SWMP and to formally present and gather comments on the SWMP from the Council.

Response:

This was amended in the Final CCSWMP.

- c. provide direction to staff to allow their participation in the Council's leadership committee which would provide a communication link to the watershed activities as a whole.

Response:

The County Engineer was the staff person assigned to the CCWC.

3. Post-Construction Runoff Control

It has come to the attention of the Council that a natural drainage off Topsy Lane that flows to Clear Creek is receiving stormwater from the Carson Valley Plaza, and the NDOT 395 culvert (see attached Topsy Drainage Map in Attachment B). This outfall is discussed on page 11 of the SWMP under the MCM for illicit discharges. A recent site visit and historical aerial photos show that the natural drainage channel is eroding severely since the development has occurred and

the stormwater outfall was connected to the drainage. Three different BMPs have been added to the channel in various locations by various parties as a means to limit the erosion and ensure the sediment and associated pollution does not enter Clear Creek. These attempts include rocking of the outfall, a rock wall midway to Clear Creek, and infiltration/retention basin on the Washoe lands adjacent to Clear Creek. These efforts are appreciated; however, the erosion is still occurring, so much so that the rock wall BMP is completely filled with sediment and is now causing additional erosion downstream (See Attachment B). Additionally, the retention basin on tribal lands is partially filled with sediment. These later structures have all been placed within the last three to five years and are now in need of maintenance. The Council requests the following in relation to this natural drainage to Clear Creek:

- a. Only the outfall of Topsy Lane is currently within the mapped portion of the SWMP. It is the Council's position that the entire drainage to Clear Creek, or at a minimum, that which is located within Douglas County, be mapped and incorporated into this SWMP because it is part of the Clear Creek stormwater system. The increased volume of water from the stormwater being discharged into this natural drainage has and continues to cause severe erosion and degradation.

Response:

The map has been expanded to include the unnamed tributary that crosses Topsy Lane. This is the tributary where the Carson Plaza development occurred. The Douglas County Design Manual requires that the peak run-off from a 25 year, 24 hour event is mitigated by development to pre-developed flows. The Carson Plaza development met the design criteria as required by the Design Manual. Typically, it is the flow rate, not the volume that affects erosion where downstream capacity is not an issue as in the case with Topsy, therefore, the erosion seen in the tributary may be from the combination of unfinished construction sites such as Riverwood and disturbances such as the work on US395 rather than the Carson Plaza development. Future plans for the Riverwood project were to add a detention pond with retention of the 2 year, 24 hour storm a sand oil interceptor and to have all of the discharge from Topsy routed through a 30 in RCP to an energy dissipater at Lyla Lane. However, since this project has lost funding, much of the drainage improvements proposed for the project were not installed. Douglas County is currently in litigation regarding the Riverwood project.

- b. The Council has concerns that the current BMPs are not adequately preventing erosion as required under this MCM, and that if there were to be a large storm event, the sediment plugs currently located within the BMPs will be washed into Clear Creek, potentially exceeding the pollution standards for Clear Creek and the Carson River. The current BMPs need to be maintained, as well as new BMPs implemented to further limit/eliminate erosion from occurring.

Douglas County is currently in litigation regarding the Riverwood project.

4. Regional Approach:

The NDEP fact sheet identifies implementation options for small MS4 operators that promote a regional approach to stormwater management coordination on a watershed basis. The Council supports this idea as several different types of regulatory authority boundaries cross the Clear Creek Watershed including Douglas County, Carson City, Nevada Department of Transportation and Indian Hills General Improvement District, as well as the Washoe Tribe. Representatives of many of these entities regularly attend Clear Creek Watershed leadership meetings. The Council requests that Douglas County work with the other entities that fall under the MS4, and within the watershed as a whole, to address impacts to Clear Creek and develop a comprehensive Clear Creek SWMP. A regional approach may also allow the County to take advantage of other local and state programs that may otherwise not be available.

Response:

Douglas County intends to continue to participate in the CCWC. However, the development of a single Clear Creek SWMP for several agencies with differing management techniques, budgets, authorities and facilities may prove problematic.

5. Expansion of the SWMP Boundaries:

The Council requests that the Clear Creek Tahoe development be included within the boundaries of the SWMP. The Council understands that the boundaries of the SWMP can be expanded to include other areas of concern within the watershed. Having this development fall within the Clear Creek SWMP would ensure a comprehensive management approach and will foster increased collaboration between all government agencies and stakeholder groups as suggested in Item 4.

Response:

Douglas County manages the Clear Creek Tahoe Golf Site Improvement Project the same as all development projects in the County: BMP's and erosion controls are required as well as mitigation measures for water quality and flow rates. The development would essentially be managed the same if it were included in the MS4. Staff recommends that the maps be maintained as presented by the federal EPA for the Carson Urbanized area. This project got caught in the financial downturn and had some unfortunate stormwater issues as a result of not having the stormwater management system built as per the approved plans.

The Clear Creek Watershed Council thanks the Douglas County Commissioners and Douglas County staff for the opportunity to comment on the Clear Creek SWMP. We are hopeful that you will take our comments, concerns, and solutions into consideration when finalizing the SWMP. If you have any questions, please contact me at Brenda@cwsd.org or on 775.887.9005.

Sincerely,

Brenda Hunt

Clear Creek Watershed Coordinator/ Clear Creek Watershed Council
Carson River Watershed Coordinator/Carson Water Subconservancy District



777 East William Street, Suite 110A
Carson City, NV 89701
775/887-7450, fax 775/887-7457

MEMO TO DOUGLAS COUNTY BOARD OF COMMISSIONERS
1/3/2012
CONTACT BRENDA HUNT, CLEAR CREEK WATERSHED COORDINATOR
CLEAR CREEK WATERSHED COUNCIL
775.887.9005

The Clear Creek Watershed Council (the Council) respectfully submits these comments in relation to the Douglas County Board of Commissioners Consent Agenda Item 3.h. These comments are in addition to the comments/concerns already presented to the Commission and Douglas County staff from Jean Stone, NDEP dated 12/5/2011.

The Clear Creek Watershed Council's mission is to protect, conserve, and restore the unique and valuable resource of Clear Creek and its watershed through collaboration, education, planning, and project implementation. The Clear Creek Watershed Council is comprised of landowners, concerned citizens, local, state, and tribal government staff, and natural resource managing agencies that share a common interest and responsibility to maintain the quality and health of the Clear Creek watershed. The goals of the council are to maintain a high level of water quality, protect healthy native fisheries and wildlife, minimize impacts of development and erosion, protect the riparian corridor, promote cultural and historical integrity, and encourage responsible access to public lands for passive recreation.

The Clear Creek Watershed Council has concerns with the currently proposed Storm Water Management Plan (SWMP) that is scheduled to be adopted January 5, 2012. These concerns relate to the six minimum control measures required to meet the reduction of pollutant discharge to the maximum extent practicable and suggestions outlined in the General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) and within the SWMP itself. The Council is in a unique position to help Douglas County to more effectively meet the General Permit conditions specifically related to several minimum control measures (MCM) and other suggested items, as outlined in the NDEP Fact Sheet (revised June 2010) for the permit (Attachment A) and the draft Clear Creek SWMP, as suggested below:

1. *Public Education and Outreach:*

The Council and its association with the Carson Water Subconservancy District (CWSD) have conducted outreach events, funded erosion control projects, and created outreach materials that have been and continue to be helpful to Douglas County in meeting the goals outlined in the permit regarding this MCM. Jean Stone's comments cautioned that the items funded through 319 grants are ineligible to be used as efforts to meet the minimum permit requirements. However, the Council and CWSD are willing to work with Douglas County to develop public education and outreach efforts on this MCM of the SWMP that are over and above the requirements of the permit.

2. *Public Participation/Involvement:*

The Council is interested in providing input into the planning and monitoring of stormwater that is eventually discharged into Clear Creek. The Council's membership, specifically the leadership committee, is currently made up of representatives from Carson City, NDEP, the Washoe Tribe, CWSD, and private citizens. Representatives from Nevada Division of Transportation (NDOT) have provided updates to the committee and overall Council membership regularly. Douglas County's representation on the committee has been sporadic and the Council welcomes more active staff representation. In light of that, the Council suggests that the Commissioners:

- a. Amend the proposed SWMP to create a formal "storm water management panel" as suggested by the plan in VI.B.2.d. This panel is recommended by the NDEP as a way to meet the MCM for Public Participation/Involvement outlined in the permit. The panel could formally review SWMP's and any proposed amendments, discuss stormwater management issues generally, and meet periodically with interested local parties, including the Watershed Council. The Council respectfully suggests that a citizen representative (Douglas County resident) of the Council's leadership committee be appointed to the panel.
- b. Include the Clear Creek Watershed Council as a target audience in the SWMP and to formally present and gather comments on the SWMP from the Council.
- c. Provide direction to staff to allow their participation in the Council's leadership committee which would provide a communication link between Douglas County and the Council on watershed activities as a whole.

3. *Post-Construction Runoff Control*

It has come to the attention of the Council that a natural drainage off Topsy Lane that flows to Clear Creek is receiving stormwater from the Carson Valley Plaza, and the NDOT 395 culvert (see attached Topsy Drainage Map in Attachment B). This outfall is discussed on page 11 of the SWMP under the MCM for illicit discharges. A recent site visit and historical aerial photos show that the natural drainage channel is eroding severely since the development has occurred and the stormwater outfall was connected to the drainage. Three different BMPs have been added to the channel in various locations by various parties as a means to limit the erosion and ensure the sediment and associated pollution does not enter Clear Creek. These attempts include rocking of the outfall, a rock wall midway to Clear Creek, and infiltration/retention basin on the Washoe lands adjacent to Clear Creek. These efforts are appreciated; however, the erosion is still occurring, so much so that the rock wall BMP is completely filled with sediment and is now causing additional erosion downstream (See Attachment B). Additionally, the retention basin on tribal lands is partially filled with sediment. These later structures have all been placed within the last three to five years and are now in need of maintenance. The Council suggests the following in relation to this natural drainage to Clear Creek:

- a. Only the outfall of Topsy Lane is currently within the mapped portion of the SWMP. It is the Council's position that the entire drainage to Clear Creek, or at a minimum, that which is located within Douglas County, be mapped and incorporated into this SWMP because it is part of the Clear Creek stormwater system. The increased volume of water from the stormwater being discharged into this natural drainage has and continues to cause severe erosion and degradation.
- b. The Council has concerns that the current BMPs are not adequately preventing erosion as required under this MCM, and that if there were to be a large storm event, the sediment plugs currently located within the BMPs will be washed into

Clear Creek, potentially exceeding the pollution standards for Clear Creek and the Carson River. The current BMPs need to be maintained, as well as new BMPs implemented to further limit/eliminate erosion from occurring.

4. *Regional Approach:*

The NDEP fact sheet identifies implementation options for small MS4 operators that promote a regional approach to stormwater management coordination on a watershed basis. The Council supports this idea as several different types of regulatory authority boundaries cross the Clear Creek Watershed including Douglas County, Carson City, Nevada Department of Transportation and Indian Hills General Improvement District, as well as the Washoe Tribe. Representatives of many of these entities regularly attend Clear Creek Watershed leadership meetings. The Council suggests that Douglas County work with the other entities that fall under the MS4, and within the watershed as a whole, to address impacts to Clear Creek and develop a comprehensive Clear Creek SWMP. A regional approach may also allow the County to take advantage of other local and state programs that may otherwise not be available.

5. *Expansion of the SWMP Boundaries:*

The Council suggests that the Clear Creek Tahoe development be included within the boundaries of the SWMP. The Council understands that the boundaries of the SWMP can be expanded to include other areas of concern within the watershed. Having this development fall within the Clear Creek SWMP would ensure a comprehensive management approach and will foster increased collaboration between all government agencies and stakeholder groups as suggested in Item 4.

The Clear Creek Watershed Council thanks the Douglas County Commissioners and Douglas County staff for the opportunity to comment on the Clear Creek SWMP. We are hopeful that you will take our comments, concerns, and solutions into consideration when finalizing the SWMP. If you have any questions, please contact me at Brenda@cwsd.org or on 775.887.9005.

Sincerely,

Brenda Hunt
Clear Creek Watershed Coordinator/ Clear Creek Watershed Council
Carson River Watershed Coordinator/Carson Water Subconservancy District



Public Works Department

MEMORANDUM

To: Board of County Commissioners

From: Cathe Pool, PE 

Subject: Response to Comments from the Carson Valley Conservation District-Item 3H

Date: January 5, 2012

Comments from the Clear Creek Watershed Council were received on January 4, 2011. Staff responses are attached. Upon approval by the Board of County Commissioners, the Storm Water Management Plans, any revisions and these comments and responses will be submitted to Nevada Division of Environmental Protection as required by the MS4 permit.

CARSON VALLEY CONSERVATION DISTRICT

USDA Service Center
1702 County Road, Minden NV 89423



MEMO TO DOUGLAS COUNTY BOARD OF COMMISSIONERS
Re: Final Clear Creek Stormwater Management Plan and Final Johnson Lane Stormwater Management Plan, presenting for approval January 5, 2012, item 3h.

Paul Pugsley, Watershed Coordinator
(775) 721.0280

The Conservation District thanks the Board of Commissioners for the opportunity for public comment on the Stormwater Management Plans for Clear Creek and Johnson Lane on December 15th and the responses as provided with the Final Plans.

We believe the Final Plans continue to be incomplete and present the following:

The term "discharge of a pollutant(s)" ... means any addition of any pollutant to navigable waters from any point source. The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

(Clean Water Act Section 502 Definitions)

Per the General Permit for Discharges from Small Municipal Separate Storm Sewer Systems Permit No. NVS040000, the ... Permittee shall revise, implement, and enforce a Storm Water Management Plan designed to reduce the discharge of pollutants...to the Maximum Extent Practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act. (Permit V.A.)

The Final Plans as presented do not map the complete stormwater infrastructure to include the "discrete conveyance by pipe, ditch, or channel "of stormwater to their respective outfalls at Clear Creek or the Carson River.

Failing to map the complete stormwater infrastructure, the County fails to enforce the Stormwater Management Plans and its own Development Code – specifically Title 20.160.060 Drainage Facilities requiring “that any development include drainage facilities “capable of conveying ... stormwater runoff ... without resulting in erosion, sedimentation or flooding of the receiving water.” Building structural BMP systems within a development site to a design specification does not alleviate the requirement to inspect and verify maintenance of structural BMP’s which exist or a determination that perhaps additional structural BMP’s need to be placed to assure the stormwater infrastructure is capable of conveying ... stormwater runoff ... without resulting in erosion, sedimentation or flooding of the receiving water.

Failing to map the complete stormwater infrastructure, the County fails to implement the Plans’ requirement to inspect and monitor the complete stormwater infrastructure system to provide a complete annual report.

Response:

Staff added the “blueline stream” shown as the unnamed tributary as well as an insert which shows the path of Clear Creek and the unnamed tributary to the Carson River as per the earlier comments and discussions with commenter’s. Improvements in the Topsy area which are installed but not completed are not shown as the final design is completely different than existing conditions. Temporary BMP’s have not been mapped.

Once the projects in the Topsy area are complete, the stormwater infrastructure will be added to the maps. The County is currently in litigation with developers in this area for failure to complete the projects including stormwater facilities.