



P.O. Box 218, Minden, NV 89423
775-782-9821 FAX: 775-782-6255

Douglas County Stormwater Advisory Committee

Meeting Agenda

Lawrence Werner, County Manager

Monday, November 14, 2016

6:30 p.m.

**Douglas County Community & Senior Center
1329 Waterloo Lane, Gardnerville, Nevada**

MISSION STATEMENT

Working together with integrity and accountability, the Douglas County team is dedicated to providing essential and cost-effective public services fostering a safe, healthy, scenic, and vibrant community for the enjoyment of our residents and visitors.

Copies of the finalized agenda are posted at the following locations prior to meeting day: Minden Inn, Administration Building (Historic Courthouse), Judicial and Law Enforcement Center, Gardnerville Post Office, Minden Post Office, Minden Library, Douglas County Administration Building and the Tahoe Transportation Center at Stateline, NV. Questions concerning the agenda should be referred to the County Manager's Office at 775-782-9821.

Agenda items may be taken out of order, may be combined for consideration, or may be removed from the agenda at any time. All items designated "for possible action" shall include discussion and possible action to approve, modify, deny, "no action," or continue the item.

It is the intent of the Stormwater Advisory Committee to protect the dignity of citizens who wish to comment before the Board. It is also the Committee's wish to provide the citizens of Douglas County with an environment that upholds the highest professional standards. Citizens should have the ability to freely comment on items and/or projects that are brought before the Committee for action without interference.

In order to ensure that every citizen desiring to speak before the Committee has the opportunity to express his/her opinion, it is requested that the audience refrain from making comments, hand clapping or making any remarks or gestures that may interrupt, interfere or prevent the speaker from commenting on any present or future project. Persons desiring an opportunity to address the Stormwater Advisory Committee and are not able to attend the meeting are requested to send an email to lpenny@douglasnv.us at the Douglas County Clerk's Office at least 24 hours prior to the convening of the Commission meeting.

Copies of supporting material can be requested in person from Laure Penny, Douglas County Clerk/Treasurer's Office, 1616 8th Street, Minden, Nevada or by calling 775-782-9020. Supporting material can also be found at <http://nv-douglascounty2.civicplus.com/agendacenter>. During the public hearing, supporting materials can be viewed in the Public Information Binder located at the entrance to the meeting room.

Notice to Persons with Disabilities: Members of the public who are disabled and require special assistance or accommodations at the meeting are requested to notify the Clerk's Office in writing at Post Office Box 218, Minden, Nevada 89423 or by calling 782-9821 at least 20 hours in advance.

DOUGLAS COUNTY STORMWATER ADVISORY COMMITTEE

FINAL AGENDA – GARDNERVILLE, NV

November 14, 2016

6:30 PM

Call to Order and Determination of Quorum

PLEDGE OF ALLEGIANCE

PUBLIC COMMENT (No Action)

At this time, public comment will be taken on those items that are within the jurisdiction and control of the Stormwater Advisory Committee or those agenda items where public comment will not be taken as a public hearing is not legally required.

Public Comment is limited to three minutes per speaker. The Stormwater Advisory Committee uses timing lights to ensure that everyone has an opportunity to speak. You will see a green light when you begin, and then a yellow light which indicates that you have thirty seconds left and should conclude your comments. Once the light turns red, please sit down.

If you are going to comment on a specific agenda item that the Stormwater Advisory Committee will take action on, please make your comments when the Stormwater Advisory Committee considers that item and the item is opened for public comment.

For members of the public not able to be present when an agendized item is heard, Speaker/Comment Forms are available from the Clerk and at the entrance to the meeting room. These cards should be completed and given to the Clerk.

APPROVAL OF AGENDA

For possible action. Approval of proposed agenda. The Stormwater Advisory Committee reserves the right to take items in a different order to accomplish business in the most efficient manner, to combine two or more agenda items for consideration, and to remove items from the agenda or delay discussion relating to items on the agenda.

APPROVAL OF PREVIOUS MINUTES

No Minutes to be approved.

ADMINISTRATIVE AGENDA

The Administrative Calendar will be handled as follows:

- (1.) The Chairman will read the agenda title into the public record.
- (2.) Staff will introduce the item and provide a report, if any.
- (3.) The applicant, if any, will have an opportunity to address the Committee.
- (4.) The Committee will then discuss the item. Once the Committee has concluded their discussion, public comment will be allowed.
- (5.) Public comment will be allowed and is limited to three minutes per speaker.
- (6.) Once public comment is completed, the Committee will then ask any follow-up questions and take action.

On agenda items that are agendized as a “presentation” with no action listed, public comment is not legally required and must be made at the beginning of the meeting.

1. For possible action. Discussion on the Election of the Chairperson for the Stormwater Advisory Committee. (Kathy Lewis, Clerk-Treasurer) 10 min

2. For possible action. Discussion on the Election of the Vice-Chairperson for the Stormwater Advisory Committee. (Kathy Lewis, Clerk-Treasurer) 5 min

3. For possible action. Discussion on the Stormwater Advisory Committee’s role, the committee guidelines, adoption of the By-Laws, an overview of a stormwater management program, and frequently asked questions. (Larry Werner, County Manager and Jeff House, CEO House Moran Consulting) 30 min

4. Presentation by Jeff House, CEO House Moran Consulting, Inc., on the current stormwater practices, challenges, costs, and a 5 year proposed program. (Jeff House) 30 min

CLOSING PUBLIC COMMENT (No Action)

At this time, public comment will be taken on those items that are within the jurisdiction and control of the Stormwater Advisory Committee or those agenda items where public comment has not already been taken.

THE TIMING FOR AGENDA ITEMS IS APPROXIMATE UNLESS OTHERWISE INDICATED AS A TIME SPECIFIC ITEM. ITEMS MAY BE CONSIDERED AHEAD OF OR AFTER THE SCHEDULE INDICATED BY THIS AGENDA.

ADJOURNMENT

Stormwater Advisory Committee

AGENDA ACTION SHEET

1. **Title:** For possible action. Discussion on the Election of the Chairperson for the Stormwater Advisory Committee. (Kathy Lewis, Clerk-Treasurer)
2. **Recommended Motion:** Move to elect _____ as the Chairperson for the Stormwater Advisory Committee.
3. **Financial Impact:** None
4. **Prepared by:** Debbie Beam, Admin. Services Manager
5. **Meeting Date:** November 14, 2016 **Time Required:** 10 minutes
6. **Agenda:** Administration
7. **Background Information:** The Stormwater Advisory Committee will select a chairperson at its first meeting who will preside at the meetings.

Agenda Item # 1

Stormwater Advisory Committee

AGENDA ACTION SHEET

1. **Title:** For possible action. Discussion on the Election of the Vice-Chairperson for the Stormwater Advisory Committee. (Kathy Lewis, Clerk-Treasurer)
2. **Recommended Motion:** Move to elect _____ as the Vice-Chairperson for the Stormwater Advisory Committee.
3. **Financial Impact:** None
4. **Prepared by:** Debbie Beam, Admin. Services Manager
5. **Meeting Date:** November 14, 2016 **Time Required:** 5 minutes
6. **Agenda:** Administration
7. **Background Information:** The Stormwater Advisory Committee will select a Vice-Chairperson who will preside in the absence of the chairperson.

Agenda Item # 2

Stormwater Advisory Committee

AGENDA ACTION SHEET

1. **Title:** For possible action. Discussion on the Stormwater Advisory Committee's role, the committee guidelines, adoption of the By-Laws, an overview of a stormwater management program, and frequently asked questions. (Larry Werner, County Manager and Jeff House, CEO House Moran Consulting)
2. **Recommended Motion:** Move to adopt the Stormwater Advisory Committee By-Laws.
3. **Financial Impact:** None
4. **Prepared by:** Debbie Beam, Admin. Services Manager
5. **Meeting Date:** November 14, 2016 **Time Required:** 30 minutes
6. **Agenda:** Administration
7. **Background Information:** The Stormwater Advisory Committee (SAC) was selected to review and make recommendations to the Douglas County Manager who will work with County staff and ultimately make recommendations to the Douglas County Board of Commissioners. Attached are the draft By-Laws, when adopted will serve as the SAC guidelines and memorandums from Jeff House presenting a stormwater utility overview and stormwater frequently asked questions.

Agenda Item # 3

Douglas County Nevada
Stormwater Advisory Committee
By-Laws

1. Mission
The mission of the Stormwater Advisory Committee (SAC) is to review and make recommendations to the Douglas County Manager who will work with County staff and ultimately make recommendations to the Douglas County Board of Commissioners on the elements of a Stormwater Management Program.

2. Membership
Members of the committee are selected by the County Manager from nominations from various public entities including the Board of County Commissioners, General Improvement Districts providing stormwater services, and representatives of the agricultural community.

There are _____ members appointed to the Stormwater Advisory Committee.

3. Officers
The committee shall select a chairperson at its first meeting who will preside at meetings. The committee shall then choose a vice-chairperson who shall preside in the absence of the chairperson.

4. Meetings
 - a. Public Process
The meetings of the Stormwater Advisory Committee shall be conducted in accordance with the State of Nevada's Open Meeting Law (NRS 241).

 - b. Agenda
Matters to be heard, within the scope of the committee's authority, shall be submitted on or before the time of agenda setting, allowing for review by the chairperson and proper noticing in conformance with the Open Meeting Law.

The chairperson will work with the County Manager to review agendas for the appropriate timing and placement of items. The chairperson does not have the authority to remove items placed on the agenda or to prevent placement of items on the agenda.

 - c. Minutes
All meetings shall be recorded on an electronic media that can be copied and written minutes of all meetings shall be maintained in

accordance with the Open Meeting Law and Public Records Law. Additionally, a video record shall be made of all meetings.

d. Quorum

Quorum Required. A quorum of at least fifty-one percent (51%) of all appointed members is required to have a meeting or to transact any business.

When No Quorum Is Possible. If the chairperson or the County Manager is aware that a quorum will not be present any time during the scheduled public meeting, then the meeting shall be cancelled.

If There Will Be A Late Quorum. If it is reasonably believed that one or more members will arrive late to complete the quorum, the meeting may begin at its scheduled time, but the chairperson may call for only non-action informational agenda items and public comment to be heard by the committee until a quorum is present. At any time after call to order, the chairperson may call a recess until the quorum is present, or call an adjournment (without a vote) after providing both opening and closing public comment periods if the quorum does not timely appear.

If There Is a Loss of Quorum. If for any reason during a public meeting that has been convened the committee loses its quorum, the chairperson may call for only non-action informational agenda items and public comment until a quorum is present. At any time after losing a quorum, the chairperson may call a recess until the quorum is present, or call an adjournment (without a vote) after providing for public comment if the quorum does not timely reappear.

e. Meeting Location and Time

The County Manager shall designate meeting locations and times for the committee, taking into consideration a time and location designed to facilitate public attendance and participation and the convenience to the membership of the committee.

f. Legal Counsel

The Douglas County District Attorney serves as legal counsel for the committee.

5. Reports to the Board of County Commissioners

The actions of the committee will be reported to the Board of County Commissioners by the County Manager. In doing so, the positions of staff, the committee, and the position of the members not voting in the majority, if so requested, will be presented.

6. Staff Liaison
The staff liaison to the committee will be the County Manager.

7. Term
The committee will have completed its charge and be discharged on the presentation of the final report to the Board of County Commissioners by the County Manager.

MEMORANDUM

TO: LARRY WERNER – DOUGLAS COUNTY MANAGER
FROM: JEFF HOUSE – CEO, HOUSE MORAN CONSULTING, INC.
SUBJECT: STORMWATER UTILITY OVERVIEW
DATE: NOVEMBER 1, 2016
CC: DEBBIE BEAM – DOUGLAS COUNTY ADMIN. SERVICES MANAGER

Like many communities, Douglas County faces a number of challenges in providing stormwater management services, while ensuring public safety, environmental protection, and complying with a myriad of federal and state mandated regulatory requirements. The Nevada Division of Environmental Protection (NDEP) and Douglas County entered into an Interlocal Agreement (ILA) to implement the Lake Tahoe Total Maximum Daily Load (TMDL) pollutant load reduction requirements pursuant to the County's Stormwater Load Reduction Plan (SLRP). Under the National Pollutant Discharge Elimination System (NPDES) state general permit, the County is required to maintain and enforce a stormwater management program to reduce pollutant discharge and protect water quality (currently Carson Area Metropolitan Planning Organization (CAMPO) and the Johnson Lane areas of north Douglas County). The areal extent of this program could expand to include more urbanized areas within the County under the permit within the next decade.

Clearly, stormwater problems exist in Douglas County. Most of the problems are not life-threatening, but they do degrade the quality of life and routinely create potential dangers. The most recognizable problems are localized flooding, erosion, and sedimentation, which occur relatively frequently in several areas. Flooding not only causes property damage, but also disrupts traffic and normal business activity, and creates public safety problems. Sedimentation from erosion causes major water quality problems, and diminishes the hydraulic performance of drainage systems.

Many areas in the County subject to chronic flooding have existing stormwater systems. However, few of the existing systems were designed to the high service-level demands posed by intense rainstorms. Many are also deteriorating because they have not been adequately maintained. Additionally, the existing systems were not designed to reduce pollutant transport and discharge. Past solutions to local flooding problems have emphasized increasing flow capacity, resulting in a higher likelihood of direct discharges of stormwater bearing pollutants to local streams.

The localized flooding and general disruption of life and business created by uncontrolled stormwater runoff in Douglas County will continue until needed capital improvements are installed and adequate maintenance is performed. To address all of the issues discussed above, a comprehensive Stormwater Management Program (SWM Program) is needed, and at a minimum, would include the following components:



- Watershed Master Planning,
- Drainage System Maintenance,
- Regulation and Enforcement,
- Stormwater Quality Management, and
- Financial Management.

If the problems are to be solved, dedicated funding of the SWM Program must be established. The source of such funding and the distribution of costs among the various areas of the County are key issues. Over the last several years, it has been determined that a sustainable revenue stream is required for the development and operation of a sound and responsive SWM Program, and as such, several primary and secondary funding mechanisms that could partially or wholly fund the County's SWM Program were explored in the previous 2009 Stormwater Utility (SWU) funding assessment. The two primary sources that could produce sufficient revenue to support the SWM Program are General Fund Appropriations and a SWU. Secondary funding sources that were employed over the last few years have been federal/state grants and loans. For potential large Capital Improvement Projects (CIPs), it was determined that potential revenue bonding would be explored. Several other sources that were evaluated in 2009 and discarded as not appropriate for the County included: special service fees, in-lieu of construction fees, system development charges, general obligation bonding, and impact fees.

Currently the County's SWM Program is funded through the General Fund. The challenge to this budget strategy is that while property taxes could be increased to provide more General Fund revenue to meet the projected needs, there is no guarantee this money would continue to be used for stormwater issues - year to year. Stormwater improvement projects can get overlooked within General Fund budget allocations, because the money collected can often go to high-visibility projects. As a result, stormwater management issues sometimes gain little interest or support. Historically across the nation, communities relying solely on General Fund Appropriations react to storm events, rather than prepare for them.

Additionally, tax revenue would not be fairly distributed among all property owners based on the burden (e.g., runoff contribution) they place on the County's stormwater system. Using General Fund Appropriations for stormwater management means that many properties which place demands on the stormwater system do not participate financially because they are exempt from general taxes. For example, schools, government agency properties, churches, and other public and quasi-public entities that do not generate property tax revenue, can discharge a large proportion of the total stormwater runoff and pollution. Conversely, other properties, such as agricultural lands may have little impact on stormwater runoff, but may pay substantial property taxes.

SWU's typically generate most of their revenue through "user" fees. "Use" of the stormwater system is defined as the demand a property places on that system, and the stormwater services and facilities provided which protect the property, downstream properties, and the receiving waters. Each property generates stormwater runoff that flows into the drainage system, and each property owner benefits, in some way, from safer streets, cleaner water, etc. The demand a



property places on a system is traditionally measured in terms of the peak flow of stormwater runoff generated by the property. The greater the flow, the greater the use, and thus, the greater the user fee. Sometimes the volume of runoff and runoff pollution are also included in the rationale for the user fee structure.

The SWU method for collecting funds based on the burden placed upon the stormwater system by the individual users – specifically property owners, are comparable in many ways to more traditional municipal water and wastewater utilities. Each utility funds a complex conveyance system that is driven by operational and regulatory requirements. Each system requires significant capital investments. Similar to other utilities, the programmatic needs dictate the utility structure, function, and budget needs. In turn, these needs drive the service fee rate. Most are managed as discrete municipal accounting entities commonly known as "enterprise" or "special revenue" funds. An enterprise fund is basically a governmental accounting mechanism used to segregate revenues and expenditures associated with a specific purpose from other municipal functions. In contrast to general governmental funds, an enterprise fund operates like a private business venture - sometimes even to the extent of generating a rate of return (profit). Special revenue funds are subject to less stringent isolation from the General Fund (and other municipal accounting funds) than are enterprise fund entities. Technically, municipal enterprise and special revenue fund entities are intended to exist at a financial "arm's length" from other local government accounting funds. However, the degree of independence in actual application varies from community to community.

As determined in previous 2009 SWU funding assessment, a SWU can offer the desired equitable, stable, flexible, and adequate funding source for a successful long-term SWM Program. SWU funding could relieve, partially or wholly, the demands that stormwater management now places on the County's General Fund. SWU revenues can be used for any activity or improvement related to stormwater management, including revenue bond debt service for major capital investments, and the local match for grants. This could enable the County to expedite major improvements to the stormwater system without reducing its bonding capacity for other purposes. The County's priorities may change over time, and the ability for SWU funding to change in concert with the County's needs is critically important. A SWU can be periodically adjusted along with major transitions in programs and priorities - especially in terms of system improvements.

Experience indicates that no single "cookbook" approach to stormwater funding, whether through a SWU or otherwise, works best in every situation. Funding methods differ in their suitability for capital, operating, regulatory, and other types of costs. A SWU would provide an institutional "umbrella" of sorts, under which a service charge and other funding methods could be adopted. No other single funding method appears to be practically and politically capable of generating the revenue necessary to meet the County's SWM Program needs.



In summary, a SWU user fee methodology is **equitable** because the cost is borne by the user on the basis of the user's demand placed on the drainage system. A SWU is **stable** because it is not as dependent on the whims of the annual budgetary process as taxes. A SWU is **adequate** because a typical stormwater program can be financed with payments below what the normal customer is willing to pay. Lastly, a SWU is **flexible** because it can be periodically adjusted along with major transitions in programs and priorities.



MEMORANDUM

TO: LARRY WERNER – DOUGLAS COUNTY MANAGER
FROM: JEFF HOUSE – CEO, HOUSE MORAN CONSULTING, INC.
SUBJECT: STORMWATER UTILITY FREQUENTLY ASKED QUESTIONS (FAQs)
DATE: NOVEMBER 1, 2016
CC: DEBBIE BEAM – DOUGLAS COUNTY ADMIN. SERVICES MANAGER

Provided below are Frequently Asked Questions (FAQs) regarding Stormwater, a Stormwater Management Program (SWM Program) and a Stormwater Utility (SWU):

THE BASICS

WHAT IS STORMWATER RUNOFF?

Stormwater runoff is the water that flows off roofs, driveways, parking lots, streets, and other hard surfaces during rainstorms. Rather than being absorbed into the ground, it pours into ditches, culverts, catch basins, and storm drains. It does NOT receive any qualitative treatment before eventually entering a community's streams and lakes.

WHAT PROBLEMS DO STORMWATER CAUSE?

Stormwater can carry harmful nonpoint source pollutants, cause flooding, erode topsoil and stream banks and destroy marine life habitats. In an area with natural ground cover, on average, only 10% of rainwater becomes runoff. The rest is absorbed or evaporates. In urban areas, up to 55% of rainfall can become stormwater runoff.

WHAT IS NONPOINT SOURCE POLLUTION?

Nonpoint source pollution is water pollution that is difficult to trace to a specific discharge point. Because it comes from many diverse sources, it is hard to control. Examples of common nonpoint source pollutants include: fertilizers, pesticides, sediments, oils, salts, trace metals, and litter. It comes from farms, yards, roofs, construction sites, automobiles and streets.

WHAT IS AN IMPERVIOUS SURFACE?

An "Impervious surface" is land that has been compacted or covered so that it is highly resistant to infiltration by water. Examples of common impervious surfaces include: buildings, manmade structures, driveways, patio areas, roofs, concrete or asphalt sidewalks, parking lots or storage areas, and other bricked, oiled, macadam or hard-surfaced areas which impede passage of storm waters into the earth's surface.



GENERAL QUESTIONS

WHY DO WE NEED A STORMWATER UTILITY?

Like many communities, Douglas County faces a number of challenges in providing stormwater management services, while ensuring public safety, environmental protection, and complying with a myriad of federal and state mandated regulatory requirements. Responsibility of management and maintenance of the stormwater drainage system is divided between a combination of County, General Improvement Districts (GIDs), and unincorporated Towns services. This current SWM Program is not adequately addressing flooding issues or water quality regulatory requirements. An equitable, stable, adequate, and flexible revenue stream will be required to administer an effective County SWM Program.

IF THE PROBLEMS ARE TO BE SOLVED, DEDICATED FUNDING OF THE SWM PROGRAM MUST BE ESTABLISHED. IF THE CLEAN WATER ACT WAS ENACTED IN 1972, WHY ARE WE JUST NOW ADDRESSING THIS ISSUE?

During the initial 15 years of this program, NPDES permit requirements were aimed at stopping pollution coming from “point” (e.g. wastewater discharge, oil refineries, etc.) sources. With stricter controls and new technology, point source pollution was greatly reduced, resulting in some water quality improvements. The Clean Water Act was amended in 1987 to expand the NPDES program to address “non-point” (e.g. stormwater runoff) source pollution, which is now the largest contributor of pollution in our streams. Only large cities and counties were included in the Phase I category of the NPDES program, but in March 2003 the program was expanded to include smaller communities, of which Douglas County, along with Carson City, Lyon County, the City of Elko, and Nellis Air Force Base were required to participate in Phase II of the NPDES program. Information about the program can be found at the EPA’s website.

RAIN ISN’T NEW TO DOUGLAS COUNTY. WHY DO WE HAVE TO PAY A STORMWATER UTILITY FEE FOR STORMWATER MANAGEMENT NOW?

Douglas County has traditionally managed stormwater by collecting it and moving it to streams, sloughs, and the Carson River as quickly as possible. Now the County faces newly mandated, but unfunded, Federal and State regulations that require management of stormwater in ways that will also protect and improve water quality. Until now, stormwater management activities have primarily been paid for with General Fund Appropriations, including property taxes, but this funding source is inadequate to pay for the County’s current and future stormwater management needs. A SWU will provide an equitable, stable, adequate, and flexible revenue stream required to administer an effective County’s SWM Program for maintaining and improving the stormwater infrastructure and complying with water quality regulations.

WHAT WOULD HAPPEN IF THE COUNTY REFUSED TO COMPLY WITH THE NPDES PERMIT?

The Federal government requires this permit under the authority of the Clean Water Act. There are substantial monetary penalties for non-compliance. Additionally, the Act provides the opportunity for third party lawsuits against the County if it fails to comply with the permit requirements.



WHY IS THIS BILLED AS A UTILITY FEE AND NOT A TAX?

A SWU fee is a user fee. "Use" of the stormwater system is defined as the demand (e.g., runoff contribution) a property places on that system, and the stormwater services and facilities provided which protect the property, downstream properties, and the receiving waters. Each property generates stormwater runoff that flows into the drainage system, and each property owner benefits, in some way, from safer streets, cleaner water, etc. The demand a property places on a system is traditionally measured in terms of the peak flow of stormwater runoff generated by the property. The greater the flow, the greater the use, and thus, the greater the user fee. Currently the County's SWM Program is funded through the General Fund. The challenge to this budget strategy is that while property taxes could be increased to provide more General Fund revenue to meet the projected needs, there is no guarantee this money would continue to be used for stormwater issues - year to year. Stormwater improvement projects can get overlooked within General Fund budget allocations, because the money collected can often go to high-visibility projects. As a result, stormwater management issues sometimes gain little interest or support. Historically across the nation, communities relying solely on General Fund Appropriations react to storm events rather than prepare for them. Additionally, tax revenue would not be fairly distributed among all property owners based on the burden they place on the County's stormwater system. Using General Fund Appropriations for stormwater management means that many properties which place demands on the stormwater system do not participate financially because they are exempt from general taxes. For example, schools, government agency properties, churches, and other public and quasi-public concerns that do not generate property tax revenue, can discharge a large proportion of the total stormwater runoff and pollution. Conversely, other properties, such as agricultural lands may have little impact on stormwater runoff but may pay substantial property taxes.

WILL THE CREATION OF A STORMWATER UTILITY RESULT IN A REDUCTION OF MY PROPERTY TAXES?

Current funding through the General Fund, including property taxes, is insufficient to fund the current or future SWM Program. It is unlikely there will be a reduction in property taxes with the addition of a SWU. General Fund revenues could be used to supplement any budget shortfalls for SWM Program activities.

PAYING FOR STORMWATER MANAGEMENT WITH A UTILITY FEE INSTEAD OF PROPERTY TAXES MEANS I WON'T BE ABLE TO DEDUCT IT. I'D RATHER KEEP THIS ON MY PROPERTY TAXES.

Property Taxes are not an equitable means of collecting funding from everyone who uses and benefits from the stormwater system. Even though the SWU user fee is not tax deductible, businesses can deduct it as a business expense. Additionally, the amount of money collected through property taxes is insufficient to fund the County's SWM Program.

WHY DIDN'T WE VOTE ON THIS?

The SWU fee is not a tax, but a fee for service, just like your water and wastewater utilities. Residents and businesses benefit from the SWU through a better-maintained storm drain system, increased flood control, and improved surface water quality. Over 2,000 municipalities across



the nation have implemented a SWU fee to fund flood control projects and satisfy water quality regulatory requirements.

WHY DON'T OTHER MUNICIPALITIES HAVE STORMWATER UTILITIES?

Over 2,000 municipalities across the U.S. have implemented a SWU fee with hundreds more currently under development. Numerous cities and counties have had SWU's in-place for many years, and more are turning to SWU's to provide stable and equitable funding to implement stormwater management activities, regardless of the severity of flooding and water quality regulatory demands.

WHAT WILL THIS FEE PAY FOR? WHAT NEW SERVICES WILL I RECEIVE?

Stormwater management systems protect people and property. In the past, General Fund revenues (including property taxes), paid for basic stormwater management activities, such as:

- Emergency maintenance, and replacement of storm sewer lines and catch basins;
- Ditch and culvert clean-out;
- Construction and maintenance of County stormwater management facilities;
- Grading and drainage plan reviews; and
- Construction site inspection for erosion control.

NPDES and Lake Tahoe Total Maximum Daily Load (TMDL) regulations require that these activities not only be continued, but expanded with additional staff, equipment, and services added including:

- Public education and participation,
- Construction of regional water quality and quantity control structures,
- Stormwater and best management practices (BMPs) planning;
- Storm sewer system mapping,
- Routine BMP, pond, and outfall inspections and maintenance,
- Detection and elimination of illegal discharges to the storm sewer system,
- Development and enforcement of erosion control ordinances,
- Development and enforcement of illicit discharge control ordinances,
- Pollution prevention activities,
- Training programs for County employees,
- Response to public inquiries, violations reports, and complaints; and
- Record keeping and report preparation.



I HAVE HAD A DRAINAGE PROBLEM IN FRONT OF MY HOUSE AND IN OUR NEIGHBORHOOD FOR YEARS AND THE COUNTY HAS NEVER DONE ANYTHING ABOUT IT. WILL YOU FIX THE PROBLEM NOW?

The County has a large backlog of drainage projects. With the new SWU, more and more of these problems can be corrected or improved, but all projects need to be individually evaluated and prioritized. Major flooding affecting main roads in the County will need to be addressed first.

WHO CAN I CALL TO GET MORE INFORMATION?

Contact Jeff House at 775-293-4000 with House Moran Consulting, Inc., or by e-mail at jhouse@housemoranconsulting.com.

FEES AND BILLING

WHEN WILL THIS CHARGE GO INTO EFFECT?

It is anticipated that the first bills will be mailed out to property owners in July, 2017.

HOW AND WHEN WILL I BE BILLED?

The first SWU fee will be included with your property tax bill in July 2017.

HOW MUCH WILL I PAY?

In general terms, the amount of impervious surface on each property is considered to be the basis for determining the amount and quality of runoff that can be expected to leave a property when it rains. Additional consideration is given to modifiers such as credits and adjustments to reduce the individual's SWU bill. It is anticipated that most homeowners will pay approximately \$5.00 per month/\$60 per year.

HOW IS MY FEE CALCULATED?

The first step in determining the charge for each property is to calculate a standard billing unit called an "Equivalent Residential Unit" or ERU. An ERU is determined by statistically generating the median size residential property in the stormwater service area. SWU fees are calculated by the amount of impervious areas on each parcel to this standard ERU. To determine the ERU applied to your property, first the impervious areas of your property are calculated. Impervious areas include your roof, driveway, garage, parking, and any other hard surfaces on your property. Once the total number of ERUs in the County is calculated, a unit charge is assigned. The national SWU monthly charge varies greatly, ranging between \$<1.00 to \$69.25, with the average monthly residential bill being \$5.14/month. The unit charge for the County will be determined by the estimated average annual budget that will be required to pay for the SWM Program. The County is currently determining the methodology for how much residents and businesses will have to pay. It is worth mentioning that the ERU methodology is the most common strategy across the nation by almost a 4 to 1 ratio over other methods, such as flat fees and multi-tier rate determinations.

WHAT IS AN ERU?



ERU stands for Equivalent Residential Unit; it is used as a base unit of measurement for all properties in the County. An ERU is determined by determining the impervious area of the average residential property in the County, based on actual Geographic Information System (GIS) measurements and statistical sampling of several areas throughout the County.

I PAY HOMEOWNER'S FEES THAT INCLUDE MONEY TO MAINTAIN A POND IN MY SUBDIVISION. WHY SHOULD I PAY TWICE?

Stormwater from your subdivision receives immediate treatment and detention, but is still ultimately released into the County's stormwater management system. The homeowners in your subdivision may be eligible for a credit or reduction in your SWU bill, but you will still be required to pay a partial SWU fee if a credit or adjustment is deemed appropriate.

I DON'T HAVE STORM SEWERS SERVING MY PROPERTY. WHY AM I BEING CHARGED THIS FEE?

Everyone benefits from the County's stormwater management activities, whether or not everyone has a storm sewer connected directly to their property. The SWU fee pays for maintenance to all means of stormwater conveyance – including ditches and streams, not just piped storm sewers. Also, everyone benefits from the storm sewer system constructed to serve the road network.

WILL INDIVIDUAL TENANTS OF APARTMENTS, MOBILE HOME PARKS, OR OFFICE PARKS PAY THE FEE?

The owner of each property will be charged a SWU fee. For multi-tenant properties, it will be determined by the property owner how to apportion their fee back to their tenants.

WHO WILL HAVE TO PAY THE STORMWATER UTILITY FEE?

Every parcel owner in the County is responsible for paying a SWU fee including County parcels, public institutions, and non-profit organizations. All developed properties will be charged a stormwater fee including privately owned parcels, residential property, agriculture lands, non-profit organizations, commercial, industrial, office, and government.

WHY ARE PUBLIC RIGHTS-OF-WAY EXEMPT FROM THE UTILITY FEE?

During rain events, the right-of-way includes a significant portion of the County's stormwater conveyance system. Curbs and gutters, grassed swales, and storm drains are commonly located within the County's right-of-way. To stay in compliance with its NPDES permit, the County must maintain the conveyance system within the public right-of-way through regular cleaning of catch basins, inlets, ditches and storm sewer pipes. The County doesn't always own the land under the road; many property owners own the land to the middle of the road. In this case, the County owns an easement, a right to use the land for roadway and drainage purposes. This form of easement is a public right-of-way, which includes the power to cut down trees/vegetation, expand the traveled portion, add gravel or pave the roadbed, and use the easement itself for storm sewer, sanitary sewer or water lines. If the County ever abandons the right-of-way, as a landowner you will recover full title to the land you own.



WE ARE A PROPERTY TAX-EXEMPT INSTITUTION. WHY ARE WE BEING REQUIRED TO PAY A STORMWATER UTILITY FEE?

Everyone receives the benefit and use of the stormwater management system, regardless of tax status, therefore, all property owners are asked to pay their fair share to support it. Tax-exempt entities will need to pay for stormwater, just like they have to pay for drinking water, wastewater, and electrical utility services.

ERRORS, EXEMPTIONS, CREDITS & ADJUSTMENTS

HOW WILL UTILITY BILL ERRORS FOR THE STORMWATER FEE BE HANDLED?

There are several types of errors that can occur with the SWU fee:

1. Your property is incorrectly classified as a non-residential customer or as a residential customer.
2. Your fee contains an apparent mathematical error.
3. You are receiving a bill for parcels that you do not own.
4. Your mailing address is incorrect.
5. You have received an official credit approval letter from the County, but no credit deductions have taken place on your bill.
6. You believe the impervious area for your property is calculated incorrectly.

Items 1-5 will be handled directly by the utility billing management department. Contact information will be provided once the department is established. Item 6 requires additional site verification by County Staff, and will require submittal of a formal written appeal. Appeal forms will be made available as part of the County's SWU Credit and Adjustment Manual, which will be made available at the office of the County Engineer and online at the County's website.

ARE FEE CORRECTIONS RETROACTIVE?

Yes, for up to six months from the time a Fee Correction Request is submitted, assuming incorrect billing occurred during that same timeframe.

ARE ANY PROPERTIES EXEMPT?

There are only two exemptions:

1. Public Roads
2. Railroad Rights-of-Way

I AM RETIRED/DISABLED AND LIVING ON A FIXED INCOME. AM I ELIGIBLE FOR A DISCOUNT?

The County does not provide SWU fee reductions for elderly, disabled, or low-income customers.

ARE THERE ANY TYPES OF BILL REDUCTIONS?

There are two types of bill reductions:



1. Credits – a percentage reduction applied to a customer’s SWU fee based upon an on-site constructed stormwater controls or BMPs that meet all of the requirements specified in the County’s Credit and Adjustment Manual and other applicable County ordinances – credits are based on constructed (man-made) features.
2. Adjustments - a modification to a customer’s SWU fee to reflect site-specific runoff characteristics that are substantially different from those attributed to the base-billing unit – adjustments are based on a natural site features.

WHAT PROPERTIES ARE ELIGIBLE FOR AN ADJUSTMENT?

An adjustment will be used to reduce the SWU fee of properties where there is a natural on-site feature that causes a significantly lower stormwater runoff impact on the County’s stormwater management system when compared to similar properties with the same land use. Examples include properties with natural wooded areas, wetlands, and depressional storage areas.

HOW ARE ADJUSTMENTS CALCULATED?

Any property owner can apply for an adjustment by submitting an adjustment application. This application will be made available as part of the County’s SWU Credit and Adjustment Manual. A member of the County’s stormwater staff will visit the property and perform assessments/measurements, and the property owner will be notified of the adjustment decision.

WHAT PROPERTIES ARE ELIGIBLE FOR A CREDIT?

Any property owner can apply for a credit if they own and maintain a stormwater management BMP on their property, provided the BMP meets County criteria. BMPs may include ponds, rain gardens, bioretention, or numerous other stormwater management practices.

HOW ARE CREDITS CALCULATED?

Any property owner can apply for a credit by submitting the credit application. This application will be made available as part of the County’s SWU Credit and Adjustment Manual. As part of this application, the property owner will be required to submit an engineer’s certification, and proof that the BMP meets the County’s criteria for BMP’s for stormwater management. A member of the County’s stormwater staff may visit the property to verify site conditions, and the property owner will be notified of the credit decision.

WILL THERE BE EDUCATION CREDITS?

An education credit is currently being considered. If it is employed, it will be available to all public and private schools or school systems with 200 or more students that agree to teach an approved environmental science curriculum in grades Kindergarten (K) through twelve (12). Information will be provided in County’s SWU Credit and Adjustment Manual.

HOW DO I FIND OUT MORE ABOUT SWU FEE CREDITS?

The County will publish a Credit and Adjustment Manual containing the requirements for credit application and the qualifications for approval. This manual will be made available at the office of the County Engineer and online at the County’s website.



GLOSSARY OF TERMS

Adjustment - a modification to a customer's SWU fee to reflect site-specific runoff characteristics that are substantially different from those attributed to the base-billing unit.

BMP – Best Management Practice.

Clean Water Act – the primary federal law in the United States governing water pollution, enacted in 1972 by the US Congress and enforced by the federal Environmental Protection Agency.

Credit - a percentage reduction applied to a customer's SWU fee based upon an on-site constructed stormwater BMP that meets all of the requirements specified in the County's Credit Manual and other applicable County ordinances.

Education Credit – a SWU credit available to schools who implement a stormwater education program for their students (under consideration currently).

EPA - U.S. Environmental Protection Agency - the federal regulatory agency responsible for oversight of the Clean Water Act and other environmental programs.

Exemption – Properties for which a SWU fee is not applied. The only two exemptions include public streets and railroad rights-of-way.

Impaired Waters List – Section 303(d) of the Clean Water Act requires each state to develop a list of water bodies that need additional work beyond existing controls to achieve or maintain water quality standards.

Impervious surface - a surface through which essentially no water or other substance can pass through. Examples include asphalt, roof-tops and concrete.

Infiltration - the draining or seeping of water into the earth and other entities such as stormwater pipes.

MS4 – Municipal Separate Storm Sewer System refers to a city or county stormwater system that is not connected to the wastewater system.

NPDES – National Pollution Discharge Elimination System is a federal regulatory program.

Nonpoint source pollution - pollution that does not originate from one specific location; examples include stormwater runoff and streambank erosion.

Point source pollution - pollution that originates at one fixed location, usually a pipe; examples include discharges from industrial facilities, water reclamation facilities, and collected stormwater runoff that is directed through a pipe.



Receiving waters - streams, lakes, or other water bodies into which a point and nonpoint sources discharge.

Retention Credit – a SWU credit available to property owners who can demonstrate that 100% of their stormwater is retained onsite for the design storm event found in the Credits and Adjustments Manual.

Runoff - rain or snow that finds its way to a lake or stream by running over land.

Storm drainage system - the network of ditches, culverts, and inlets that convey stormwater from the land surface to the stream system.

Storm drainage feature – Any catch basin, drainage inlet, ditch or pipe that collects or conveys stormwater from the land surface to the stream system.

Surface water - water that flows above ground, including lakes, rivers, streams, and oceans.

TMDL – Total Maximum Daily Load specifies the maximum amount of a specific pollutant that a designated stream segment can receive and still meet designated water quality standards.



Stormwater Advisory Committee

AGENDA ACTION SHEET

1. **Title:** Presentation by Jeff House, CEO House Moran Consulting, Inc., on the current stormwater practices, challenges, costs, and a 5 year proposed program. (Jeff House)
2. **Recommended Motion:** Presentation only.
3. **Financial Impact:** None
4. **Prepared by:** Debbie Beam, Admin. Services Manager
5. **Meeting Date:** November 14, 2016 **Time Required:** 30 minutes
6. **Agenda:** Administration
7. **Background Information:** Jeff House, CEO House Moran Consulting, Inc., will be presenting on Stormwater Management Challenges and a proposed 5-year Stormwater Management Program. Included in the presentation will be Strategic Planning, Costs/Funding, System Limitations and Flooding, Maintenance, Technical/Management and Level-of-Service Constraints, and Public Support of the Stormwater Program.

Agenda Item # 4

MEMORANDUM

TO: LARRY WERNER – DOUGLAS COUNTY MANAGER
FROM: JEFF HOUSE – CEO, HOUSE MORAN CONSULTING, INC.
SUBJECT: PROPOSED STORMWATER MANAGEMENT PROGRAM
DATE: NOVEMBER 1, 2016
CC: DEBBIE BEAM – DOUGLAS COUNTY ADMIN. SERVICES MANAGER

Stormwater Management Challenges and Proposed 5-Year SWM Program

1. Strategic Planning

- The County has historically managed stormwater reactively without a strategic plan for preventive activities and improvements; as such, it lacks clearly specified priorities for operations and capital improvements.
- Stormwater management is related to many other County functions, from growth management to road construction, but has not been directly incorporated into the planning and management of these related programs.
- The County is very diverse and has differing stormwater service level needs that the Stormwater Utility (SWU) must address concurrently, ranging from minimal needs in the rural areas to very intensive and technically demanding needs in the urbanized areas.

2. Costs/Funding

- The County has not historically allocated adequate funding to stormwater operations and capital investment, largely because it has lacked a solid program strategy and capital improvement plans to guide funding, but also because stormwater management has difficulty competing with other pressing needs for General Fund Appropriations (See Table 1 on Page 5 for Stormwater Management (SWM) Program Functional Cost Centers).
- Economic incentives have not been provided for those who are providing sound Best Management Practices (BMPs) and related measures that reduce the County's stormwater problems.

3. System Limitations and Flooding

- The impact of local flooding on access and mobility throughout the County poses potential safety problems, especially if flooding delays emergency vehicles during storms.
- New development and lack of maintenance are contributing to or causing local flooding and drainage systems to have reduced capacity due to sedimentation.



- Many natural or modified channels outside road corridors are becoming problems as residential development pushes into new areas, and the County does not own, control, or even have access to many of these private development channels.
- There is a lack of engineered drainage systems in some parts of the County.
- Many of the existing drainage systems are designed to old standards, resulting in channels and pipes that are too small for flows in urbanizing areas and/or due to intense storms.

4. Maintenance

- Older systems, especially corrugated metal pipe storm sewers, are beginning to fail with increasing frequency.
- Reactive maintenance, which has been tolerated for many years, is not acceptable in the increasingly urban setting in many areas as development intensifies.

5. Technical/Management and Level-of-Service Constraints

- Master planning for capital improvements is only just beginning, so data on capital needs are very limited.
- The County's geographical information system (GIS) needs to be functionally integrated with the stormwater operational and capital programs.
- The County's Stormwater Design Criteria may need to be revised to address desired Level-of-Service (LOS).
- Accordingly, the Stormwater Ordinance will need to be revised for any design criteria revisions and inclusion of the SWU.
- The County will need to revise the current property tax billing system to include billing and collecting stormwater service charges county-wide for the preferred option of sending the SWU bill along with the property tax bill in July. It is anticipated that SWU payments can be made quarterly or annually.

6. Public Support for the Stormwater Program

- Public buy-in on the SWU concept has been surprisingly positive, but, absolute acceptance still needs to be diligently addressed with a steadfast mission through public information/education resources.

5-YEAR PROPOSED SWM PROGRAM

The mission of the proposed SWM Program is to plan, develop, implement, operate, and adequately and equitably fund the acquisition, construction, operation, maintenance, and regulation of stormwater drainage systems and activities. The SWM Program shall safely and



efficiently control stormwater runoff, protect and improve public health and safety, protect lives and property, facilitate mobility throughout the County and enable access to homes and businesses, complement and support other County programs and objectives, eliminate the discharge of pollutants in stormwater to receiving waters, and enhance the natural resources of the community.

The following proposed building blocks are some of the key steps in meeting the mission.

Year 1

- Complete the establishment of a stormwater utility.
- Initiate development of a stormwater system inventory GIS layer for the urban portions of the County.
- Assemble a watershed-based, county-wide stormwater capital improvement planning schedule.
- Assess and prioritize flooding problems and identify immediate project opportunities and stop-gap measures.
- Begin immediate construction of improvements for known high-priority flooding problems.
- Develop and adopt a maintenance policy for problems outside of rights-of-way and easements.
- Continue National Pollutant Discharge Elimination System (NPDES) permit stormwater quality management program in Carson Area Metropolitan Planning Organization (CAMPO) Area.
- Continue Total Maximum Daily Load (TMDL) permit compliance requirements.
- Apply for Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance (HMA) Grants.

Year 2

- Expand watershed based, county-wide stormwater capital improvement planning beyond watersheds currently being addressed.
- Identify priority property, right-of-way, and easement acquisitions.
- Begin construction of priority capital improvement projects.
- Implement enhanced routine and remedial maintenance program.
- Continue National Pollutant Discharge Elimination System (NPDES) permit stormwater quality management program in CAMPO Area.
- Continue TMDL permit compliance requirements.
- Apply for FEMA HMA Grants.



Year 3

- Complete watershed based stormwater capital improvement planning in the urban service areas.
- Continue capital improvement planning, construction, and operational program improvements.
- Continue National Pollutant Discharge Elimination System (NPDES) permit stormwater quality management program in CAMPO Area.
- Continue TMDL permit compliance requirements.
- Apply for FEMA HMA Grants.

Year 4

- Evaluate and if conditions are favorable, seek revenue bonds or establish special assessment districts for major capital improvement program, based on watershed master planning.
- Continue capital improvement planning, construction, and operational program improvements.
- Adopt a county-wide stormwater capital improvement program.
- Continue National Pollutant Discharge Elimination System (NPDES) permit stormwater quality management program in CAMPO Area.
- Continue TMDL permit compliance requirements.
- Apply for FEMA HMA Grants.

Year 5

- Evaluate and if conditions are favorable, seek revenue bonds or establish special assessment districts for major capital improvement program, based on watershed master planning.
- Continue capital improvement planning, construction, and operational program improvements.
- Continue National Pollutant Discharge Elimination System (NPDES) permit stormwater quality management program in CAMPO Area.
- Continue TMDL permit compliance requirements.
- Apply for FEMA HMA Grants.
- Conduct a cost of service analysis/rate study addendum/update to support continuing program enhancement.



TABLE 1: SWM PROGRAM

EXISTING/POTENTIAL FUNCTIONAL COST CENTERS

<p>1. Administration General Administration Gen. Program Planning and Development</p> <p>2. Special Programs Public Awareness and Involvement GIS and Database Management Spec Program Planning and Development</p> <p>3. Billing and Finance Billing Operations Customer Service Financial Management Capital Outlay</p> <p>4. Indirect Cost Allocation Overhead Costs Cost Control Support Services</p> <p>5. Stormwater Quality/TMDL Mgmt. Quality Master Planning Retrofitting Program Monitoring Program Illicit Connections Program BMP, SLRP/TMDL Programs Misc. Quality Management Program(s)</p>	<p>6. Engineering & Planning Design Criteria, Standards and Guidance Quantity Master Planning Design, Field and Ops Engineering Hazard Mitigation Zoning Support Plan Review FEMA HMA Grants</p> <p>7. Operations General Maintenance Management General Routine Maintenance Emergency Response Maintenance Infrastructure Management Public Assistance</p> <p>8. Regulation and Enforcement Gen. Code Dev. and Enforcement General Permit Administration Gen. Drainage Sys Insp. & Reg. Flood Insurance and CRS Programs Multi-Objective Floodplain Management Erosion Control Program</p> <p>9. Capital Improvements Major Capital Improvements Minor Capital Improvements Land, Easement, and Right-of-Way</p>
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