

**AGENDA
* A M E N D E D**

**COMBINED SPECIAL MEETING / WORK SESSION
TUESDAY
APRIL 30, 2013**

**COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
6:00 P.M.**

SPECIAL MEETING

1. Call to Order

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

MAYOR NABOURS
VICE MAYOR EVANS
COUNCILMEMBER BAROTZ
COUNCILMEMBER BREWSTER

COUNCILMEMBER ORAVITS
COUNCILMEMBER OVERTON
COUNCILMEMBER WOODSON

3. Pledge of Allegiance

4. Consideration and Approval of Agreement: Consent Order - Arizona Department of Environmental Quality in the Matter of Wildcat Hill Wastewater Treatment Plant and Rio de Flag Water Reclamation Facility; **and discussion of associated conservation efforts.***

RECOMMENDED ACTION:

Approve and sign the Consent Order between the City of Flagstaff and the Arizona Department of Environmental Quality

5. Adjournment

WORK SESSION

1. Call to Order

2. Public Participation

Public Participation enables the public to address the council about items that are not on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

3. Preliminary Review of Draft Agenda for the May 7, 2013, City Council Meeting.*

** Public comment on draft agenda items may be taken under "Review of Draft Agenda Items" later in the meeting, at the discretion of the Mayor. Citizens wishing to speak on agenda items not specifically called out by the City Council for discussion under the second Review section may submit a speaker card for their items of interest to the recording clerk.*

4. Discussion on community non-profit special event signs.

5. Discussion on Use of Wireless Communication Devices While Driving or Bicycling Prohibited - Proposed Ordinance - 2013-11.

6. Arizona Department of Transportation Consultation with Rural Elected Officials.

7. ~~Presentation on Principles of Sound Water Management – Water Policies: Recharge & Recovery and Water Conservation~~ REMOVED FROM AGENDA.*

8. Review of Draft Agenda Items for the May 7, 2013, City Council Meeting*

** Public comment on draft agenda items will be taken at this time, at the discretion of the Mayor.*

9. Public Participation

10. Informational Items To/From Mayor, Council, and City Manager

11. Adjournment

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on _____, at _____ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this _____ day of _____, 2013.

Elizabeth A. Burke, MMC, City Clerk

CITY OF FLAGSTAFF STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: Brad Hill, Utilities Director
Date: 04/12/2013
Meeting Date: 04/30/2013



TITLE:

Consideration and Approval of Agreement: Consent Order - Arizona Department of Environmental Quality in the Matter of Wildcat Hill Wastewater Treatment Plant and Rio de Flag Water Reclamation Facility; **and discussion of associated conservation efforts.***

RECOMMENDED ACTION:

Approve and sign the Consent Order between the City of Flagstaff and the Arizona Department of Environmental Quality

Policy Decision or Reason for Action:

Wildcat Hill Wastewater Treatment Plant (Wildcat Hill) has experienced several problems in meeting portions of its regulatory permits since its upgrade was completed in January 2010. This Consent Order is in response to a Notice of Violation from the Arizona Department of Environmental Quality submitted to the City regarding Wildcat Hill. Since February 2013, City staff and the Arizona Department of Environmental Quality have been working together on negotiating this administrative Consent Order.

Financial Impact:

While there is no financial impact within the Consent Order, the Arizona Department of Environmental Quality is reserving its right to pursue civil penalties should it elect to do so.

At the February 26, 2013 City Council meeting staff brought forward a \$1.2 million solids handling solution for Wildcat Hill Wastewater Treatment Plant. This is the first step in moving the facility closer to consistently make Class A+ quality reclaimed water.

Connection to Council Goal:

1. Repair Replace maintain infrastructure (streets & utilities)

Has There Been Previous Council Decision on This:

None

Options and Alternatives:

City Council could elect not to enter into this administrative Consent Order. Should the City elect not to, the Arizona Department of Environmental Quality has stated it will pursue civil action including penalties via a Compliance Order in accordance with A.R.S. 49-261 & 49-262.

Background/History:

The City decided to upgrade Wildcat Hill Wastewater Treatment Plant (Wildcat Hill) in 2003 to increase the quality of reclaimed water from Class B to Class A+. In 2006, the City conducted a Value Engineering study in order to reduce the cost of the final plant design. This study eliminated ~\$8.2 million worth of treatment process upgrades. Since the reconstruction of Wildcat Hill was certified by the design engineer to be completed in January 2010, the facility has experienced several problems in meeting portions of its regulatory permits. City staff have been working on solutions to Wildcat Hill's treatment and design problems since April 2010 with little success. The Arizona Department of Environmental Quality issued a Notice of Violation to the City on April 11, 2012 concerning exceedances of cyanide and selenium in violation of the City's Arizona Pollution Discharge Elimination System permit. Additionally, Wildcat Hill has not consistently treated reclaimed water to Class A+ quality in violation of the City's Type 3 Agent Reclaimed Water General Permit and Aquifer Protection Permit. On January 23, 2013, ADEQ inspected the Rio de Flag Water Reclamation Facility (Rio WRF) and determined on select days in 2011 and 2012, that facility did not accurately report exceedances in the 5-day rolling geometric mean for nitrogen and daily average turbidity in violation of its Aquifer Protection Permit.

Expanded Financial Considerations:

On February 26, 2013 Utilities brought to City Council for their approval a \$1.2 million Solids Handling Solution for the Wildcat Hill Wastewater Treatment Plant. Increased solids handling capability was one project eliminated in the Value Engineering study. The project approved by Council is the first step in allowing Wildcat Hill to consistently treat to Class A+ reclaimed water. After the implementation of this project and completion of a Process Optimization Study, there may be other projects required to ensure that Wildcat Hill maintains regulatory compliance with all of its permits.

Community Involvement:

Inform

Attachments: [Consent Order](#)

Form Review

Inbox	Reviewed By	Date
Purchasing Director	Rick Compau	04/12/2013 11:04 AM
Finance Director	Rick Tadder	04/15/2013 10:55 AM
Legal Assistant	Vicki Baker	04/15/2013 11:06 AM
Senior Assistant City Attorney DW	David Womochil	04/22/2013 04:05 PM
Utilites Director (Originator)	Brad Hill	04/23/2013 12:21 PM
DCM - Josh Copley	Josh Copley	04/25/2013 04:48 PM
Form Started By: Brad Hill		Started On: 04/12/2013 08:54 AM
	Final Approval Date: 04/25/2013	



BEFORE THE DIRECTOR OF THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

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In the Matter of)
)
Wildcat Hill Wastewater Treatment Plant)
located at 2800 N. El Paso Flagstaff Road and)
Rio De Flag Water Reclamation Facility)
(WRF) located at 600 S. Babbitt Drive,)
Flagstaff, Coconino County, Arizona)
)
Inventory Number: 100760)

CONSENT ORDER

Docket No. _____

City of Flagstaff in their capacity as Owner and Operator of the Wildcat Hill Wastewater Treatment Plant (WWTP) located at 2800 N. El Paso Flagstaff Road and the Rio De Flag Water Reclamation Facility (WRF) located at 600 S. Babbitt Drive, Flagstaff, Coconino County, Arizona.

RECITALS

City of Flagstaff (Flagstaff) acknowledges that no promise of any kind or nature whatsoever, was made to induce it to enter into this Consent Order, and City of Flagstaff has done so voluntarily.

Flagstaff acknowledges that by entering into this Consent Order, it does not resolve any liability it may have for civil penalties for violations of any State or Federal environmental law.

By entering into this Consent Order, Flagstaff does not admit to any civil or criminal liability, or waive any right including but not limited to the assertion of any defense available to Flagstaff under applicable law. Further, Flagstaff does not admit, and both the Arizona Department of Environmental Quality (ADEQ) and Flagstaff retain the right to controvert in any subsequent proceeding except proceeding to implement or enforce this Consent Order, the validity of any Findings of Fact or Conclusions of Law contained in this Consent Order.

The undersigned representative of Flagstaff certifies that he is fully authorized to execute this Consent Order on behalf of Flagstaff and to legally bind Flagstaff to this Consent Order.

Initials _____

1 Flagstaff admits to the jurisdiction of the Director of ADEQ.

2 Except as to the right to controvert the validity of any Findings of Fact or Conclusion of
3 Law contained in this Consent Order in a proceeding other than to enforce this Consent Order,
4 Flagstaff consents to the terms and entry of this Consent Order and agrees not to contest the
5 validity or terms of this Consent Order in any subsequent proceeding.

6 **THEREFORE, IT IS HEREBY ORDERED** as follows:

7 **I. JURISDICTION**

8 The Director of ADEQ has jurisdiction over the subject matter of this action and is
9 authorized to issue this Consent Order pursuant to the Arizona Revised Statutes (A.R.S.) § 49-
10 261 and 41-1092.07(F)(5).

11 **II. FINDINGS**

12 **THE DIRECTOR HEREBY MAKES THE FOLLOWING FINDINGS OF FACT AND**
13 **CONCLUSIONS OF LAW:**

14 A. **Findings of Fact**

15 1. Flagstaff operates the Wildcat Hill WWTP – a Publicly Owned Treatment Works
16 (POTW) with a design flow of 6 million gallons per day (MGD) that serves Flagstaff with a
17 service population of 63,560 people. There are 8 significant industrial users including medical
18 facilities, an industrial laundry, soft drink bottler, recycled paper manufacturer, and a pet food
19 manufacturer. Wildcat Hill WWTP has a pretreatment program in place. Discharge from the
20 facility is allowed under the authority of an Arizona Pollutant Discharge Elimination System
21 (AZPDES) permit AZ0020427. Flagstaff also has an Aquifer Protection Permit (APP) # P-
22 100760.

23 2. Flagstaff operates the Rio de Flag Water Reclamation Facility (WRF) under APP
24 permit P-102421 and under AZPDES permit AZ0023639.

25

1 3. Flagstaff has a Type 3 Agent Reclaimed Water General Permit R106143 issued
2 on July 30, 2009 for Wildcat Hill WWTP and Rio de Flag WRF.

3 Wildcat Hill WWTP - AZPDES permit # AZ0020427

4 4. On January 17, 2012, an ADEQ inspector conducted an inspection of the Flagstaff-
5 Wildcat Hill WWTP. A pre-inspection file review of the Discharge Monitoring Report Forms
6 (DMRs) determined that the facility had reported exceedances of the discharge limit (DL) of 0.2
7 kg/day for monthly average mass loading for cyanide during the month of October of year 2010
8 and during the month of October of year 2011. The reported values for the monthly average mass
9 loading of cyanide ranged from 0.3 kg/day to 0.4 kg/day. The facility reported exceedances of a
10 DL of monthly average concentration of 8 µg/l for cyanide for the month of October of the year
11 2010 and during the months of January, June through October, and December of the year 2011.
12 The reported values for the monthly average concentration of cyanide ranged from 8.9 µg/l to
13 19.5 µg/l. The facility also exceeded a DL of 16 µg/l for the daily maximum concentration of
14 cyanide during the months of October 2010 and during the months of June, July, October and
15 December of the year 2011. The reported values for the daily maximum concentration of cyanide
16 ranged from 18 µg/l to 22 µg/l.

17 5. During the January 17, 2012, inspection, the ADEQ inspector also determined
18 that the DMRs submitted to ADEQ by the facility reported exceedances of a DL of 0.04 kg/day
19 for the monthly average loading concentration for selenium for the months of April and July of
20 the year 2011. The reported values for the monthly average loading concentration of selenium
21 ranged from 0.07 kg/day to 0.135 kg/day. The facility reported selenium exceedances for the
22 daily maximum loading concentration of 0.07 kg/day for the months of April and July of the year
23 2011. The reported values for the daily maximum loading concentration for selenium ranged
24 from 0.16 kg/day to 0.19 kg/day. The DMRs also showed exceedances of the monthly average
25 concentration of 2 µg/l for selenium for the months of April and July of the year 2011. The

1 reported values for monthly average concentration ranged from 9 µg/l to 17 µg/l. The facility
2 exceeded the daily maximum concentration of 3 µg/l for selenium for the months of April and
3 July of the year 2011. The reported values for the daily maximum concentration ranged from 11
4 µg/l to 18 µg/l.

5 6. On April 11, 2012, ADEQ issued a Notice of Violation (NOV) to Flagstaff for
6 exceeding the AZPDES permit DLs for selenium and cyanide.

7 7. Flagstaff-Wildcat Hill WWTP is authorized to discharge domestic wastewater from
8 the WWTP to an unnamed wash, tributary to the Rio de Flag River under an AZPDES permit
9 AZ0020427. A file review of the facility conducted by ADEQ on February 14, 2013 determined
10 that the reclaimed water from the Flagstaff-Wildcat Hill WWTP that enters into the reclaimed
11 water distribution system and not used by end users could be discharged to the Francis Short
12 Pond in the Rio de Flag River. Water delivered to Francis Short Pond is a surface water
13 discharge and requires coverage under an AZPDES permit. This outfall is not identified in the
14 Wildcat Hill WWTP AZPDES permit AZ0020427.

15 8. On March 5, 2013, ADEQ conducted a file review of the Discharge Monitoring
16 Report Forms (DMRs) submitted by Flagstaff for the Wildcat Hill WWTP for the calendar year
17 2012. ADEQ found Flagstaff had reported exceedances of the discharge limit (DL) of 8ug/l for
18 monthly average concentration for cyanide during the months of June, July, September, October,
19 November and December 2012. The reported values for the monthly average concentration for
20 cyanide ranged from 10ug/l to 19ug/l. The facility reported exceedances of a DL of the daily
21 maximum concentration of 16µg/l for cyanide for the months of September and December 2012.
22 The reported values for the daily maximum concentration of cyanide were 20µg/l and to 19µg/l
23 respectively. The facility reported exceedances of a DL of the monthly average loading
24 concentration of .02kg/day for December 2012. The reported value for the monthly average
25 loading concentration was 0.03 kg/day.

1 9. On March 5, 2013, ADEQ conducted a file review of the Discharge Monitoring
2 Report Forms (DMRs) submitted by Flagstaff for the Wildcat Hill WWTP for the calendar year
3 2012. ADEQ found Flagstaff had reported exceedance of the DL of 2ug/l for selenium for the
4 monthly average concentration, daily maximum concentration of 3ug/l, daily maximum loading
5 concentration of .07 kg/day, and monthly average loading concentration of .04 kg/day. The
6 reported values for the monthly average concentration for selenium for the 2nd, 3rd and 4th
7 quarters of 2012 ranged from 5ug/l to 8ug/l; the daily maximum concentration for selenium for
8 the 2nd, 3rd and 4th quarters of 2012 ranged from 6ug/l to 15ug/l; the daily maximum loading
9 concentration of 0.07 kg/day and monthly average loading concentration of 0.04 kg/day for
10 selenium was reported at .09kg/day and .06kg/day respectively.

11 Rio de Flag WWTP - Aquifer Protection Permit # P-102421

12 10. On January 23, 2013, an ADEQ inspector conducted an inspection of the Flagstaff
13 –Rio de Flag Water Reclamation Facility (WRF). A pre-inspection file review of the facility
14 determined that the facility did not: i) notify ADEQ within five (5) days of exceeding: a) 5
15 month rolling geometric mean for nitrogen Alert Level for the months of February through June
16 of the year 2011, b) daily average turbidity on May 24 and 25 of the year 2012; ii) submit to the
17 Enforcement Unit of Water Quality Compliance Section, a written report within 30 days of
18 becoming aware of the exceedances of the DL for Daily Average Turbidity on May 24 and 25 of
19 year 2012; iii) apply for an amendment to permit P-102421 to include Wildcat Hill as an
20 additional source of water for Francis Short Pond.

21 11. On March 5, 2013 ADEQ conducted a review of APP permit P-102421 and found
22 that the Pine Canyon Golf Course which receives reclaimed water from the Rio de Flag WWTP
23 is not listed as a Point of Compliance in APP permit P-102421.

24 Wildcat Hill WWTP - Aquifer Protection Permit # P-100760

25

1 12. On February 13, 2013, ADEQ conducted a file review of the Wildcat Hill
2 WWTP and discovered that the Self Monitoring Report Forms (SMRFs) submitted by the facility
3 reported exceedances of the APP permit Alert Limit (AL) of 8mg/L for total nitrogen for the
4 months of January through December of the years 2010, 2011, and 2012 for the sampling point
5 002, POC#1, also known as Doney Park well. The reported values for total nitrogen ranged from
6 8.2 mg/l to 10mg/l. The verification sampling conducted by Flagstaff also confirmed that the
7 ALs for total nitrogen for all these months of January through December had been exceeded.
8 Flagstaff neither increased the monitoring frequency from monthly to weekly nor did it notify
9 ADEQ of the AL exceedances within five (5) days of the exceedances as required by the APP
10 permit P-100760. The Wildcat Hill and Rio de Flag plants comingle reclaimed water in the same
11 distribution system and excess reclaimed water is discharged into the Francis Short Pond. Francis
12 Short Pond is not listed as a Point of Compliance in the Wildcat Hill permit P-100760.

13 City of Flagstaff Reuse Program – Type 3 Agent Reclaimed Water Permit -106143

14 13. On February 13, 2013, ADEQ conducted a file review of the SMRFs for the APP
15 P-100760 permit for Wildcat Hill WWTP and determined that Flagstaff did not meet the Class
16 A+ status for the reclaimed water and exceeded a DL of 10mg/l for the 5-sample geometric mean
17 for total nitrogen during the months of June, July, August, September, and October of the year
18 2010; during the months of February through December of year 2011; and during the months of
19 January through October, and December of year 2012. The reported values for the 5-sample
20 geometric mean for total nitrogen ranged from 10.5 mg/l to 16.9mg/l. The City also reported on
21 their SMRFs for Wildcat Hill WWTP that they delivered reclaimed water that did not meet Class
22 A+ status for the following months: June-August 2010; May-September 2011; February 2012;
23 May, June, July, September, and October, 2012. The City discharged 124.885 million gallons of
24 non-Class A+ water over 194 days.

1 B. Conclusions of Law

2 Wildcat Hill WWTP - AZPDES permit #AZ0020427 violations:

3 1. By exceeding the AZPDES permit DLs for the monthly average mass loading,
4 monthly average concentration, and daily maximum concentration of cyanide; Flagstaff violated
5 Part I. A. of AZPDES permit AZ0020427 which permits a DL of 0.2 kg/day for monthly average
6 mass loading, a DL of 8 µg/l for the monthly average concentration, and a DL of 16 µg/l for the
7 daily maximum concentration of cyanide.

8 2. By exceeding the AZPDES permit DLs for the monthly average loading
9 concentration, daily maximum loading concentration, monthly average concentration, and daily
10 maximum concentration of selenium; Flagstaff violated Part I. A. of AZPDES permit
11 #AZ0020427 which permits a DL of 0.04 kg/day for the monthly average loading concentration,
12 a DL of 0.07 kg/day for the daily maximum loading concentration, a DL of 2 µg/l for monthly
13 average concentration, and a DL of 3 µg/l for daily maximum average concentration for
14 selenium.

15 3. By failing to identify the Francis Short Pond as an outfall in the Wildcat Hill
16 WWTP AZPDES permit # AZ0020427, Flagstaff violated § 49-255.01 for a discharge that is not
17 in conformance with a permit.

18 Wildcat Hill WWTP - APP # P-100760 violations:

19 4. By failing to increase the monitoring frequency from monthly to weekly after the
20 verification sampling confirmed exceedances of the APP permit AL of 8mg/L for total nitrogen;
21 Flagstaff violated Part 2.6.2.3.2.2 of APP permit P-100760 which requires Flagstaff to increase
22 the monitoring frequency to weekly for constituents that have a permit monitoring frequency of
23 monthly.

1 Wildcat Hill WWTP - AZPDES permit #AZ0020427

2 1. Within sixty (60) days of the effective date of this Consent Order, Flagstaff shall
3 submit to ADEQ for review and approval a written plan to identify the cause of the reported
4 exceedances of cyanide and selenium for AZPDES permit #AZ0020427. The plan shall include,
5 but is not limited to, the description of the measures that have been or will be taken (e.g. updated
6 pretreatment program and processes, lab procedures, etc.), to resolve the violation, and include
7 deadlines for completion. ADEQ shall review the plan, along with accompanying deadlines
8 submitted by Flagstaff, and if ADEQ deems necessary, provide written comments to Flagstaff.
9 Flagstaff shall incorporate any changes requested by ADEQ within the timeframes prescribed by
10 ADEQ. The approved plan shall be incorporated by reference into this Consent Order. Flagstaff
11 shall notify ADEQ in writing that tasks have been completed in their monthly status report
12 required under Section IV of this Order.

13 2. Within fifteen (15) months from the effective date of this Consent Order,
14 Flagstaff shall submit to the Water Quality Data Unit, analytical results pursuant to Part II.B of
15 the AZPDES permit AZPDES permit # AZ0020427 and demonstrate to ADEQ that the
16 concentration levels in the effluent has been met in accordance with Part I. A. Table 1 of the
17 AZPDES permit # AZ0020427.

18 3. Within sixty (60) days of the effective date of this Consent Order, Flagstaff shall
19 submit to ADEQ, a complete major modification request pursuant to R18-9-B906.A. and a
20 \$2,000 permit modification request fee for AZPDES permit # AZ0020427. The request shall
21 include the Francis Short Pond as an additional outfall to the Wildcat Hill AZPDES permit #
22 AZ0020427.

23 Wildcat Hill WWTP - Aquifer Protection Permit #P-100760

24 4. Within thirty (30) days of the effective date of this Consent Order, Flagstaff shall
25 submit to ADEQ, documentation that Flagstaff has increased the monitoring frequency from

1 monthly to weekly pursuant to Part 2.6.2.3.2.2 of APP permit P-100760, for total nitrogen at
2 POC well #1 or sampling point 2, also known as the Doney Park Well at the Flagstaff –Wildcat
3 Hill WWTP or POC #2 as identified in APP Section 2.4 should the City elect to install.

4 5. Within sixty (60) days of the effective date of the Consent Order, Flagstaff shall
5 submit to ADEQ, a plan describing the corrective measures taken will be taken by Flagstaff to
6 reduce total nitrogen at monitoring point 001 at the Flagstaff –Wildcat Hill WWTP - APP permit
7 P-100760 to below the DL of 10 mg/l and AL below 8 mg/l and to meet the Class A+ reuse
8 standard of 10 mg/l. The plan shall include deadlines for completion of all tasks. The deadlines
9 shall be established based on the date on which ADEQ approves the plan. ADEQ shall review
10 the plan, along with accompanying deadlines submitted by Flagstaff, and if ADEQ deems
11 necessary, provide written comments to Flagstaff. Flagstaff shall incorporate any changes
12 requested by ADEQ within the timeframes prescribed by ADEQ that are mutually agreeable with
13 the City. The approved plan shall be incorporated by reference into this Consent Order. Flagstaff
14 shall notify ADEQ in writing that tasks have been completed in their monthly status report
15 required under Section IV of this Order.

16 6. Within ninety (90) days of the effective date of this Consent Order, Flagstaff shall
17 submit a complete permit application pursuant to R18-9-A211 to amend the current APP permit
18 P-100760 to add the Francis Short Pond as a new point of compliance. Alternatively, Flagstaff
19 may submit documentation that the reclaimed water from the Wildcat Hill WWTP will not be
20 discharged to the Francis Short Pond.

21 Rio de Flag WWTP - Aquifer Protection Permit P-102421

22 7. Within ninety (90) days of the effective date of this Consent Order, Flagstaff shall
23 submit a complete permit application pursuant to R18-9-A211 to amend the current APP permit
24 P-102421 to add Pine Canyon Golf Course as a new point of compliance and Wildcat Hill
25 WWTP as a water provider to Francis Short Pond. Alternatively, Flagstaff may submit

1 B. ADEQ will review the status reports and relay any disputes in writing to Flagstaff.
2 Flagstaff shall incorporate all required modifications, changes or other alterations, as requested
3 by ADEQ, within a reasonable time specified by ADEQ.

4 **V. COMPLIANCE WITH OTHER LAWS**

5 A. This Consent Order does not encompass issues regarding releases, contamination,
6 sources, operations, facilities or processes not expressly covered by the terms of this Consent
7 Order, and is without prejudice to the rights of the State of Arizona or Flagstaff, arising under
8 any federal or Arizona environmental statutes and rules with regard to such issues.

9 B. Nothing in this Consent Order shall constitute a permit of any kind, or a
10 modification of any permit of any kind, or an agreement to issue a permit of any kind under
11 federal, state or local law, or relieve Flagstaff in any manner of its obligation to apply for, obtain,
12 and comply with all applicable permits. Nothing in this Consent Order shall in any way alter,
13 modify or revoke federal, state, or local law, or relieve Flagstaff in any manner of its obligation
14 to comply with such laws. Compliance with the terms of this Consent Order shall not be a
15 defense to any action to enforce any such permits or laws.

16 **VI. FORCE MAJEURE**

17 A. Flagstaff shall perform all the requirements of this Consent Order according to the
18 time limits set forth herein, unless performance is prevented or delayed by events which
19 constitute a *force majeure*. *Force majeure*, for the purposes of this Consent Order, is defined as
20 any event, arising from causes beyond the control of Flagstaff or its authorized representatives
21 which delays or prevents the performance of any obligation under this Consent Order and which
22 could not have been overcome or prevented by Flagstaff. The financial inability of Flagstaff to
23 comply with the terms of this Consent Order, shall not constitute a *force majeure*.

24 B. In the event of a *force majeure*, the time for performance of the activity affected
25 by the *force majeure* shall be determined by ADEQ and extended for a period no longer than the

1 documentation that the reclaimed water from the Wildcat Hill WWTP will not be discharged to
2 the Francis Short Pond.

3 8. Within thirty (30) days of effective date of this Consent Order, Flagstaff shall
4 comply with the monitoring and reporting requirements of the APP permit P-102421 for the Rio
5 de Flag WRF. Flagstaff shall also provide documentation to demonstrate that staff have received
6 training and are familiar with the monitoring and reporting requirements of the permit.

7 Flagstaff Reuse Program - Type 3 Agent Reclaimed Water Permit -106143

8 9. Immediately upon the effective date of this Order, Flagstaff shall cease providing
9 reclaimed water from the Wildcat Hill WWTP that does not meet Class A+ until the plant meets
10 the requirements of the APP # P-100760, or until such time that, Flagstaff either:

11 a. Obtains a Type 3 Reclaimed Water General Permit for a Reclaimed Water
12 Blending Facility; or

13 b. Submit a permit amendment allowing the distribution of a Class A reclaimed
14 water. If Flagstaff chooses to distribute Class A water reclaimed water, Flagstaff shall provide
15 documentation to ADEQ to ensure that the end users comply with the nitrogen management
16 requirements pursuant to A.A.C. R18-9-713(C) through (E) prior to distributing such water to
17 any end users.

18 **IV. STATUS REPORTS**

19 A. Flagstaff agrees to submit a written status report to ADEQ every thirty (30)
20 calendar days beginning thirty (30) days from the effective date of this Consent Order, until
21 termination of this Consent Order. Each written status report shall describe what measures have
22 been taken under Section III, of this Consent Order, and shall certify when compliance with the
23 requirements of Section III of this Order has been achieved. Each report shall be accompanied
24 by evidence of compliance including, as appropriate, submittal of documents, photographs or
25 copies of any other supporting information that Flagstaff deems necessary.

1 delay caused by the *force majeure*. The time for performance of any activity dependent on the
2 delayed activity shall be similarly extended. In the event of a *force majeure*, Flagstaff shall
3 notify ADEQ in writing within five (5) calendar days after Flagstaff or its agents become aware
4 of the occurrence. The written notice provided to ADEQ shall describe in detail the event, the
5 anticipated delay, the measures taken and to be taken by Flagstaff to prevent or minimize delay,
6 and a proposed timetable under which those measures will be implemented. Flagstaff shall take
7 all reasonable measures to prevent or minimize any delay caused by the *force majeure*. Failure
8 of Flagstaff to comply with any requirements of this paragraph for a particular event shall
9 preclude Flagstaff from asserting any claim of *force majeure* for that event.

10 **VII. SITE ACCESS**

11 ADEQ may at any time, upon presentation of credentials to authorized personnel on duty,
12 enter upon the premises at the Facility for the purpose of observing and monitoring compliance
13 with the provisions of this Consent Order. This right of entry shall be in addition to, and not in
14 limitation of or substitution for, ADEQ's rights under applicable law.

15 **VIII. CORRESPONDENCE**

16 All documents, materials, plans, notices, or other items submitted as a result of this
17 Consent Order shall be transmitted to the addresses specified below:

18 To ADEQ:

19 Arizona Department of Environmental Quality
20 Water Quality Division
21 Attention: Nirupma Bhatia, Enforcement Officer
22 Water Quality Enforcement Unit
23 1110 West Washington Street
24 Phoenix, Arizona 85007-2935
25 Telephone: (602) 771-4479
Email: nb3@azdeq.gov

To City of Flagstaff:

Kevin Burke, City Manager
211 W Aspen Ave
Flagstaff, AZ 86001

1 Telephone: (928) 213-2078

2 Submissions to ADEQ as a result of this Consent Order shall be deemed submitted upon receipt.

3 **IX. RESERVATION OF RIGHTS**

4 A. This Consent Order is based solely upon currently available information. If
5 additional information is discovered, which indicates that the actions taken under this Consent
6 Order are or will be inadequate to protect human health, safety, or the environment, or to
7 conform with applicable federal or state laws, ADEQ shall have the right to require further
8 action.

9 B. ADEQ shall have the right: to pursue civil penalties for violations of any and all
10 violations of A.R.S. Title 49, or the rules promulgated thereunder, occurring before entry of this
11 Consent Order; to disapprove of work performed by Flagstaff that fails to comply with this
12 Consent Order; to take enforcement action for any and all violations of this Consent Order; and
13 to take enforcement action for any and all violations of A.R.S. Title 49, or the rules promulgated
14 thereunder, occurring after the entry of this Consent Order.

15 **X. SEVERABILITY**

16 The provisions of this Consent Order are severable. If any provision of this Consent
17 Order is declared by a court of law to be invalid or unenforceable, all other provisions of this
18 Consent Order shall remain in full force and effect.

19 **XI. MODIFICATIONS**

20 Any modifications of this Consent Order shall be in writing and must be approved by
21 both Flagstaff and ADEQ.

22 **XII. EFFECTIVE DATE**

23 The effective date of this Consent Order shall be the date this Consent Order is signed by
24 ADEQ and Flagstaff. If such signatures occur on different dates, the later date shall be the
25 effective date of this Consent Order.

1 **XIII. PARTIES BOUND**

2 No change in ownership, corporate status, or partnership status relating to the subject of
3 this Consent Order will in any way alter the responsibilities of Flagstaff under this Consent
4 Order. Flagstaff will be responsible, and will remain responsible, for carrying out all activities
5 required under this Consent Order.

6 **XIV. TERMINATION**

7 The provisions of this Consent Order shall be deemed satisfied and this Consent Order shall be
8 terminated upon receipt of written notification from ADEQ that Flagstaff has demonstrated, to
9 the satisfaction of ADEQ, that all of the terms of this Consent Order have been completed. Any
10 denial of a request for termination from Flagstaff will be in writing and describe which terms of
11 the Consent Order have not been completed to the satisfaction of ADEQ. ADEQ reserves the
12 right to terminate this Consent Order unilaterally at any time for any reason. Any termination
13 will include a written explanation of the reason(s) for termination.

14 **ISSUED** this ___ day of _____, 2013.

15
16
17 _____
18 Michael A. Fulton, Director
19 Water Quality Division
20 Arizona Department of Environmental Quality
21
22
23
24
25

CONSENT TO ORDER

The undersigned, on behalf of City of Flagstaff, hereby acknowledges that [he/she] has read the foregoing Consent Order in its entirety, agrees with the statements made therein, consents to its entry and issuance by the Arizona Department of Environmental Quality, agrees that Flagstaff will abide by the same and waive any right to appeal therefrom.

DATED this ___ day of _____, 2013.

Gerald W. Nabours, Mayor
City of Flagstaff

ATTEST:

City Clerk, City of Flagstaff

APPROVED AS TO FORM:

City Attorney, City of Flagstaff

ORIGINAL of the foregoing Consent Order was sent certified mail, return receipt requested, this ___ day of _____, 2013, to:

Kevin Burke, City Manager
City of Flagstaff
211 W Aspen Ave
Flagstaff, AZ 86001

COPY of the foregoing Consent Order was filed this ___ day of _____, 2013, with:

Arizona Department of Environmental Quality
Office of Administrative Counsel
Attention: Hearing Administrator
1110 West Washington Street
Phoenix, Arizona 85007-2935

COPIES of the foregoing Consent Order were sent by regular/interdepartmental mail, this ___ day of _____, 2013, to the following:

Tamara Huddleston, Chief Counsel, Environmental Enforcement Unit
Office of Attorney General
1275 West Washington Street
Phoenix, AZ 85007

Mindi Cross, Manager, WQCS, ADEQ
Marcia Colquitt, Manager, WQEU, ADEQ
Nirupma Bhatia, Case Manager, WQEU, ADEQ

Coconino County Health Services Department
Barbara L. Worgess, Director
2625 North King Street
Flagstaff, Arizona 86004

Ken Greenberg, Chief
CWA Compliance Office (WTR-7)
U.S. EPA, region IX
75 Hawthorne Street
San Francisco, CA 94105

Memorandum

4.

CITY OF FLAGSTAFF

To: The Honorable Mayor and Council
From: Roger Eastman, Zoning Code Administrator
Date: 04/19/2013
Meeting Date: 04/30/2013



TITLE:

Discussion on community non-profit special event signs.

DESIRED OUTCOME:

At this work session, staff will be seeking direction from the City Council on how best to provide for community non-profit special event signs currently placed at various locations within the City, if warranted.

INFORMATION:

DISCUSSION

On March 6, 2013 the City Manager's Property Committee met to discuss options for what to do with non-profit community event signs now placed in various locations within the City, many of which have become de facto posting locations. These non-profit community event signs are frequently banners, often sponsored by a local beverage company, and most commonly placed on fences at the BNSF property south of the I Do I Do Wedding Center near City Hall and at Mount Elden Middle School on the corner of Cedar Avenue and Fourth Street. In addition, they are sometimes on the split rail fence near the old Wal-Mart (corner of Beulah Boulevard and McConnell Drive) and on the north side of Butler Avenue on a fence opposite the Sawmill development (see photographs on the following page). Single banners are also frequently placed anywhere within the City as well.

Background:

- Non-profit community event signs, like those included in Attachment A, are not specifically permitted in the Zoning Code. Further, as these signs are not located on the property where the non-profit community event would be occurring, they are off-premise signs, which are also prohibited in the Zoning Code.
- For at least the past eight to nine years, City code compliance staff has not enforced the removal of signs for non-profit community events. However, prior to this time frame, and following the adoption of the 1997 Sign Code, more rigorous enforcement of all signs was conducted by City staff. The reason for the more lenient approach was the thought that the placement of these signs provided a community service for non-profit organizations to advertise community events provided the property owners on whose property the signs had been placed did not prohibit them. However, staff has continued to seek the removal of signs advertising for-profit businesses placed at these locations as these are off-premise signs which are prohibited.
- FUSD, as a "political subdivision of the state," is exempt from local municipal zoning regulations and, therefore, from the City's sign regulations. For this reason FUSD schools may hang banners on their fences that advertise school programs and activities (e.g. enrollment in STEM classes or environmental programs), but the banners may not be placed within City rights-of-way.

Overview of the Issue:

- Property owners such as BNSF and FUSD have become increasingly frustrated and concerned with the proliferation of non-profit community event signs on their properties.
- Staff has also received complaints and heard concerns from Flagstaff residents noting that these signs are an eyesore that contribute to visual clutter. Economic Vitality Division staff have also commented that these banners are neither appropriate nor representative of the City we are trying to promote.
- Staff notes, however, that an argument could be made that non-profit community event signs add value to the community by providing residents with information on community events, and that as a small city, these signs are part of Flagstaff's charm and character.
- The issue then, is whether the City should allow these signs to be placed in the community under the regulatory framework of suitably drafted and approved standards to be included in the Zoning Code? If so, where should they be permitted; on private property or on City property in defined locations, such as, for example, the corner of Route 66 and Fourth Street; or the corner of Lone Tree Boulevard and Butler Avenue?; or the intersections of Route 66 and Schweitzer Canyon Drive or Route 66 and Humphreys Street?

Options:

1. Decide whether the City should allow non-profit event signs to be placed in the community. This decision assumes suitably drafted and approved content neutral standards that satisfy First Amendment provisions of the law have been adopted in the Zoning Code.
 - Consider allowing non-profit community event signs to be placed on private property locations where a suitable support structure has been erected. This may be simply a series of wooden posts approximately 9" in diameter set in the ground with a strong metal fence material between them on which the non-profit community event banner signs could be hung subject to approval of a temporary sign permit. Ideally, the property owner would be responsible for the costs associated with the construction of the sign support structure, and City staff would manage the program (note that the Zoning Code already allows Temporary Event Signs to be placed at the location where the event will be held).
 - Similarly, the City Council could approve appropriate locations on City property with a simple support structure as described above, where subject to a temporary sign permit, non-profit community event signs would be allowed.
 - If there is support for the idea of a suitably designed sign support structure on either private or public property agreement is needed on:
 - Where in the City these might be allowed?
 - The type of support structure?
 - Funding for the design and construction of the support structure(s)?
 - Which City division administers the program – presumably the Code Compliance Program in the Community Development Division?
2. Alternatively, the City Council could choose to not support the idea of creating opportunities on City or private property for the placement of non-profit community event signs. Therefore, no amendments to the Sign Regulations of the Zoning Code would be necessary, except to clarify this prohibition.

If this option is pursued, staff proposes that it would be appropriate to move slowly with regard to enforcement so that the non-profit organizations and vendors who make the banners can be informed of this change in policy, and so that alternatives to the banners can be presented to the non-profit community organizations to advertise their events.

Some alternatives include the use of:

- On-line community bulletin boards (e.g. radio stations such as KNAU, Arizona Daily Sun, and others) which typically offer advertising for such events at no charge
- www.Flagstaff365.com, a new free on-line community bulletin board service presented in partnership by Flagstaff Cultural Partners and the Flagstaff Convention and Visitors Bureau
- Organizations such as Boys and Girls Club, Murdock Center, etc. to help promote other non-profit organization's events
- Advertising through community event publications like Flagstaff Live and others
- Paid advertising using conventional media with the support of sponsors to assist with the costs.
- Staff has initiated a discussion with United Way to explore the idea of a new website specifically focused on advertising non-profit community events that might be developed and hosted by United Way. The organization has expressed great interest in and support for this idea, and is willing to work with the City to get it established. If such a website is developed, a link from the City's webpage to this website could be created, and signs placed at strategic locations in the community could guide non-profit organizations to this website.
- Other ideas, such as inviting the Arizona Daily Sun to sponsor a once-a-week section of the paper where non-profit organizations could advertise their events will also be explored.

Conclusion:

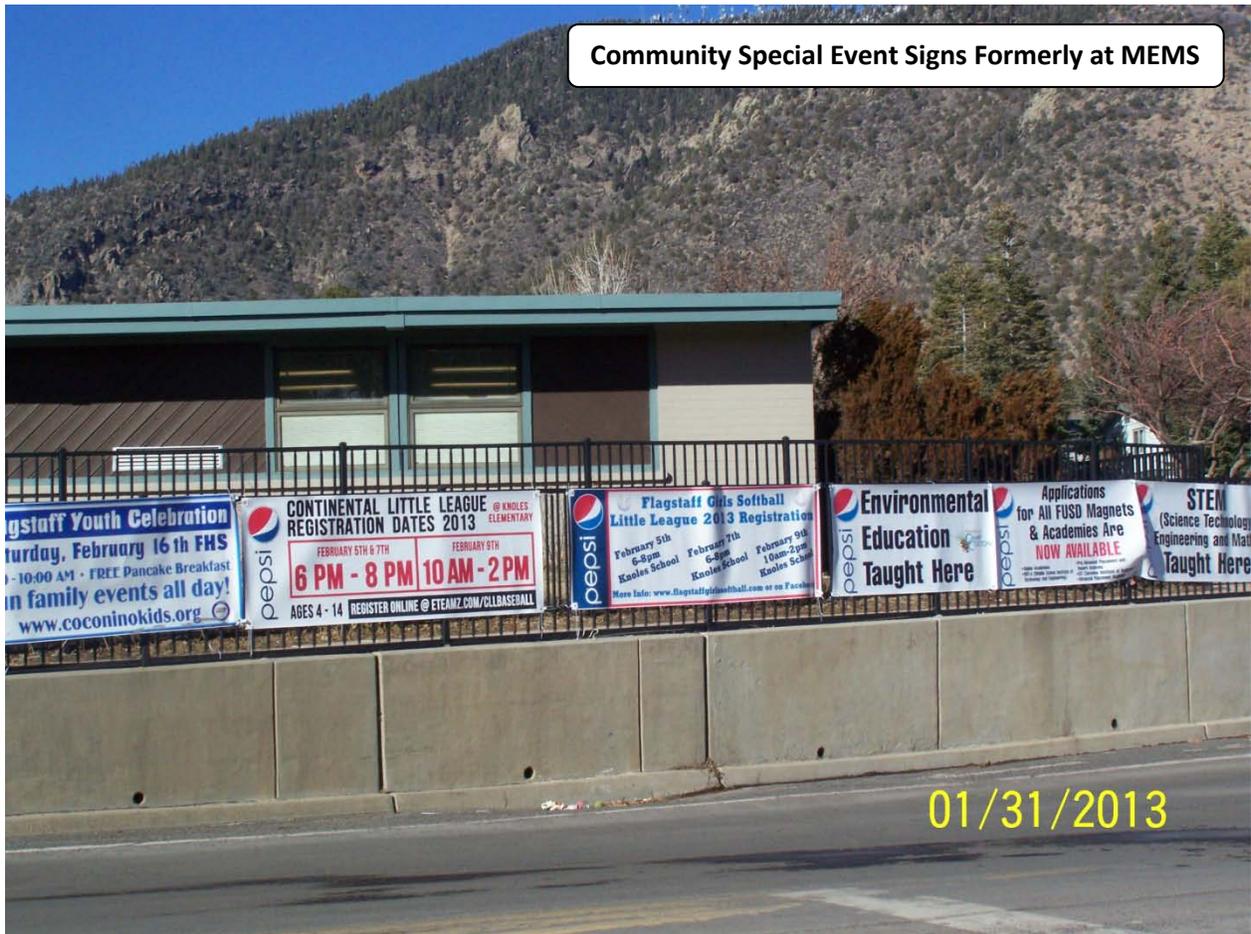
At the April 30, 2013 work session, staff will seek direction from the City Council on the issue of non-profit community event banner signs that are currently placed on private property throughout the community. Specifically, staff is seeking direction on whether these types of signs should be permitted, and if so, where in the community they should be permitted, and under what conditions.

Attachments: [Attachment A](#)

Form Review

Inbox	Reviewed By	Date
Planning Director	Jim Cronk	04/25/2013 10:54 AM
Community Development Director	Elizabeth A. Burke	04/25/2013 12:09 PM
Community Development Director	Elizabeth A. Burke	04/25/2013 12:10 PM
DCM - Jerene Watson	Jerene Watson	04/26/2013 10:17 AM
Form Started By: Roger Eastman		Started On: 04/19/2013 02:13 PM
	Final Approval Date: 04/26/2013	

A. PHOTOGRAPHS OF SOME COMMUNITY NON-PROFIT SPECIAL EVENT SIGNS



Community Special Event Signs Formerly at MEMS



Near I Do I DO on Route 66 (BNSF property)



W. Route 66 and Pinnacle Drive

Memorandum

5.

CITY OF FLAGSTAFF



To: The Honorable Mayor and Council
From: Jeff Bauman, Traffic Engineer
Date: 04/23/2013
Meeting Date: 04/30/2013

TITLE:

Discussion on Use of Wireless Communication Devices While Driving or Bicycling Prohibited - Proposed Ordinance - 2013-11.

DESIRED OUTCOME:

Staff is seeking Council comments and direction on the proposed Use of Wireless Communication Devices While Driving or Bicycling Prohibited - Proposed Ordinance 2013-11.

INFORMATION:

In October 2009 the Transportation Commission requested Staff to investigate the options for creating a Citywide Texting While Driving ban. Staff researched the topic and found that at the State and Federal levels there was quite a bit of activity and their seemed to be momentum enough that a Federal or State prohibition was imminent. Staff recommended to the Commission that they wait and see how the Federal and State proposals progressed, instead of moving forward with a local ordinance.

After several months past and the State and Federal initiatives did not move forward staff brought a draft ordinance to the Transportation Commission. The Transportation Commission discussed and modified the draft ordinance at multiple meetings in 2010 and 2011. The Transportation Commission in January 2012 approved the language in the proposed ordinance and recommended it be approved by the City Council.

Shortly after the Commission's approval five separate proposals at the State level began moving through the Legislature. This resulted in the City's proposed ordinance again being put on hold. The State has now concluded its session without enacting any variations to a texting while driving prohibition.

Distracted driving is any activity that could divert a person's attention away from the primary task of driving. All distractions endanger driver, passenger, and bystander safety. The U.S. Department of Transportation defines three main types of distraction, visual, manual, and cognitive. Text messaging, and other similar uses of wireless electronic devices, requires visual, manual and cognitive attention from the driver and, is considered to be the worst common distraction to drivers.

According to the U.S. DOT in 2011 3,311 people were killed in crashes involving a distracted driver, and an additional 387,000 people were injured in motor vehicle crashes involving a distracted driver. According to a study performed by Virginia Tech Transportation Institute (VTTI) drivers distracted by text messaging incur a crash risk 23 times worse than driving while not distracted. A research study performed by the Department of Psychology at Carnegie Mellon University found that participants who were asked to concurrently listen and answer questions while driving a vehicle simulator had decreased driving accuracy and a measured 37% decrease in brain function associated with the driving task.

The City's proposed ordinance - USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING

OR BICYCLING PROHIBITED 2013-11 specifically addresses operators of motor vehicles or bicycles viewing, sending, storing or composing electronic messages and sending, reading, creating, playing or interacting with internet-based content.

The Transportation Commission in drafting this proposed ordinance intentionally chose to address distracted driving associated with what is considered the worst common distraction to drivers, text messaging. Hand-held and hands-free cell phone use is not addressed in this ordinance, though was debated at great length by the Transportation Commssion.

Attachments: [Ordinance](#)
 [Presentation](#)
 [CCR 2012](#)

Form Review

Inbox	Reviewed By	Date
City Engineer	Rick Barrett	04/26/2013 07:49 AM
Community Development Director	Elizabeth A. Burke	04/26/2013 10:36 AM
DCM - Jerene Watson	Jerene Watson	04/26/2013 10:38 AM
Form Started By: Jeff Bauman		Started On: 04/23/2013 08:25 AM
	Final Approval Date: 04/26/2013	

ORDINANCE NO. 2013-11

AN ORDINANCE AMENDING TITLE 9, TRAFFIC, CHAPTER 9-01, TRAFFIC CODE, BY ADDING A NEW SECTION 9-01-001-0013, USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING OR BICYCLING PROHIBITED; EXCEPTIONS; AND PROVIDING FOR PENALTIES

RECITALS:

WHEREAS, while there is ample research regarding the dangers of distracted driving generally, there is an increasing amount of evidence showing that text messaging is the most dangerous driver distraction of all; and

WHEREAS, a recent University of Utah study concluded that distracted driving caused by drivers using hand held cell phones reduce a driver's reaction time as much as having a blood alcohol concentration of .08, the legal limit in the State of Arizona; and

WHEREAS, in 2009 the National Safety Council called for a ban on the use of cell phones by drivers of motor vehicles; and

WHEREAS, in 2011, 3,311 people were killed in crashes involving a distracted driver, while an additional 387,000 people were injured in motor vehicle crashes involving a distracted driver; and

WHEREAS, according to the National Safety Council, on any given day in 2008 more than 800,000 vehicles were driven by someone using a hand held cell phone, and government and insurance research shows that it is the youngest and most inexperienced drivers, who are already in more than their share of road accidents and deaths, who use such devices while driving most; and

WHEREAS, in the month of June 2011, more than 169 billion text messages were sent, up 50% from 2009; and

WHEREAS, each year, 21 per cent of fatal car crashes involving teenagers between the ages of 16 and 19 were the result of cell phone use and this statistic is anticipated to grow by as much as 4 per cent each year; and

WHEREAS, in a 2009 survey, a Car and Driver Magazine study found that a legally intoxicated individual travelling at 70 mph braking suddenly traveled 4 feet beyond his baseline performance, while a sober individual reading an email traveled 36 feet beyond the baseline performance and 70 feet beyond while sending a text; and

WHEREAS, this Council finds that prohibiting text messaging while driving is necessary for the health and safety of Flagstaff citizens;

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS

FOLLOWS:

SECTION 1. Title 9, Traffic, Chapter 9-01, Traffic Code, is hereby amended by adding the following section:

9-01-001-0013. USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING OR BICYCLING PROHIBITED; EXCEPTIONS.

A. As used in this section:

1. "Electronic message" means a self-contained piece of digital communication that is designed or intended to be transmitted between physical devices. An electronic message includes, but is not limited to, a text based communication, a command or request to access an internet site, or other data that uses a commonly recognized electronic communication protocol.
2. "Wireless communication device" means any portable electronic device capable of transmitting or receiving data in the form of an electronic message or capable of accessing the internet, including but not limited to a wireless telephone, a text-messaging device, a personal digital assistant, or a personal computer.

B. No person shall operate a motor vehicle or a bicycle while using a wireless communication device to:

1. view, send, store or compose an electronic message;
2. send, read, create, play or interact with internet-based content.

For purposes of this section, "bicycle" shall have the same meaning as set forth in Flagstaff City Code Section 9-05-001-0002, Definitions.

C. This section shall not apply to:

1. a driver using a wireless communication device while the bicycle or motor vehicle is stopped, parked or standing and is removed from the flow of traffic, or is stopped due to the inoperability of the bicycle or vehicle; or
2. a driver using a wireless communication device to report a health or safety emergency; or
3. a driver using a factory-installed or portable navigation device; or
4. a driver using a wireless communication device in the course of the driver's duties while operating an emergency or a public safety vehicle.

D. A violation of this section shall be a civil traffic violation.

E. If a person violates this section and the person is not involved in a motor vehicle accident, the person shall be subject to a civil penalty of not less than one hundred dollars plus any other penalty assessments or surcharges as authorized by law.

F. If a person violates this section and the person is involved in a motor vehicle accident, the person shall be subject to a civil penalty of not less than two hundred fifty dollars plus any other penalty assessments or surcharges as authorized by law.

G. If a person is cited for violating this section, the person is involved in a motor vehicle accident and a written report is required by law, the law enforcement personnel investigating the accident shall indicate on the written accident form the use of a wireless communication device at the time of the accident.

SECTION 2. Should any sentence, paragraph, section, subsection, division, subdivision, clause or phrase of this ordinance be adjudged to be unconstitutional, illegal or invalid, the same shall not affect the validity of the document as a whole, or any part or provision thereof other than that part so decided to be unconstitutional, illegal or invalid, and shall not affect the validity of this ordinance, or the Flagstaff City Code, as amended, as a whole.

SECTION 3. That the City Clerk be authorized to correct typographical and grammatical errors, as well as errors of wording and punctuation, as necessary; and that the City Clerk be authorized to make formatting changes needed for purposes of clarity and form, if required, to be consistent with Flagstaff City Code.

PASSED AND ADOPTED by the City Council and approved by the Mayor of the City of Flagstaff this _____ day of _____, 2013.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Proposed Ordinance – Use of Wireless Communication Devices While Driving or Bicycling Prohibited - Overview

The purpose of this presentation is to provide background on Distracted Driving issues, provide some history of the Transportation Commission's journey to this point and finally overview the Proposed Texting While Driving Prohibition Ordinance.

- First discussed in 2009 by the City's Transportation Commission
- Commission requested that Staff monitor any State or Federal legislation that was being proposed
- The Arizona Legislature over several sessions has proposed multiple versions of Distracted Driving laws
- In 2012 at the Transportation Commission's request staff moved forward in drafting a local ordinance banning the use of wireless communications devices while driving

Use of Wireless Communication Devices While Driving or Bicycling Prohibited

Distracted driving is any activity that could divert a person's attention away from the primary task of driving. All distractions endanger driver, passenger, and bystander safety.

Common types of distraction are:

- Texting
- Cell phone or Smartphone use
- Eating and drinking
- Talking to passengers
- Grooming
- Reading, including maps
- Using a navigation system
- Adjusting the radio
- Combinations of the above

Listening to the radio is not commonly considered a distraction

Texting while Driving Research

A significant amount of research has taken place over the past 3 – 4 years. Some of the key findings are:

- Distractions affect driving performance
- Sending or receiving a text takes a driver's eyes from the road for an average of 4.6 seconds, at 55 MPH that equates to one football field.
- Drivers frequently are distracted, perhaps as much as half the time
- Distractions are estimated to be associated with 15 to 25 percent of all crashes
- Texting likely increases crash risk more than cell phone use
- In 2011, 3,331 people were killed in crashes involving a distracted driver. An additional 387,000 people were injured in motor vehicle crashes involving a distracted driver.
- In the month of June 2011, more than 196 billion text messages were sent, up 50% from 2009
- 11% of all drivers under the age of 20 involved in fatal crashes were reported as distracted at the time of the crash. This age group has the largest proportion of drivers who were distracted.
- Drivers who use hand-held devices are 4 times more likely to get into crashes serious enough to injure themselves.
- Driving while using a cell phone reduces the amount of brain activity associated with driving by 37%.
- Headset cell phone use is not substantially safer than handheld use
- The impairments associated with Cell phone driving and Legal Limit 0.08% BAC driving are similar

Texting while Driving Legislative History

- The Transportation Commission began discussing the dangers of texting while driving in 2010.
- Staff began monitoring various proposed versions of State and Federal legislation.
- In 2012 the Arizona State Legislature had 5 proposed bills of various versions prohibiting distracted driving
- Arizona currently prohibits School Bus drivers from using a cell phone when passengers are present.
- The cities of Phoenix (2007) and Tucson (2012) have enacted texting while driving prohibitions.

Cell Phone While Driving Existing Legislation

Governors Highway Safety Association Statistics

– Cell Phone Laws Summary:

- **Handheld Cell Phones:** 10 states, D.C. Puerto Rico, Guam and the Virgin Islands prohibit all drivers from using handheld cell phones while driving. Except for Maryland all laws are primary enforcement – an officer may cite a driver for using a handheld cell phone without any other traffic offense taking place.
- **All Cell Phone use:** No state bans all cell phone use for all drivers, but many prohibit all cell phone use by certain drivers:
- **Novice Drivers:** 36 states and D.C. ban all cell phone use by novice drivers
- **School Bus Drivers:** Bus Drivers in 19 states and D.C. may not use a cell phone when passengers are present (Arizona's only law)

Texting while Driving Existing Legislation

Governors Highway Safety Association Statistics

– Texting Laws Summary:

- **Text Messaging:** 39 states, D.C., Puerto Rico, Guam and the Virgin Islands ban text messaging for all drivers. All but 4 have primary enforcement.
- **Novice Drivers:** An additional 6 states prohibit text messaging by novice drivers
- **School Bus Drivers:** 3 states restrict school bus drivers from texting while driving.
- **Preemption Laws:** Many Cities have passed their own versions of distracted driving bans and 7 States have legislation that prohibits Cities from enacting such laws.

Federal Distracted Driving Issues

- The U.S. Department of Transportation has determined that passenger car driving behavior does not fall under Federal jurisdiction.
- Many states already include a category on their standard Police Accident Form for cell phone/electronic equipment distraction. There is proposed federal legislation that would require states to collect this data or face losing certain federal funding.
- In 2009 the federal government banned text messaging by federal employees, this also extended to contractors, subcontractors, recipients and subrecipients – the City has added text messaging while driving prohibition language to all of our projects involving federal grants

Use of Wireless Communication Devices While Driving or Bicycling Prohibited – Proposed Ordinance 2013-11

Traffic Code 9-01-001-0013

- Definitions
 - Electronic message – means a self-contained piece of digital communication that is designed or intended to be transmitted between physical devices. An electronic message includes, but is not limited to, a text based communication, a command or request to access an internet site, or other data that uses a commonly recognized electronic communication protocol
 - Wireless communication device – means any portable electronic device capable of transmitting or receiving data in the form of an electronic message or capable of accessing the internet, including but not limited to a wireless telephone, a text messaging device, a personal digital assistant, or a personal computer.

Use of Wireless Communication Devices While Driving or Bicycling Prohibited – Proposed Ordinance 2013-11

Traffic Code 9-01-001-0013

- No person shall operate a motor vehicle or a bicycle while using a wireless communication device to:
 1. view, send, store or compose an electronic message;
 2. send, read, create, play or interact with internet-based content.
- This section shall not apply to:
 1. a driver using a wireless communication device while the bicycle or motor vehicle is stopped, parked or standing **and** is removed from the flow of traffic, or is stopped due to the inoperability of the bicycle or vehicle; or
 2. a driver using a wireless communication device to report a health or safety emergency; or
 3. a driver using a factory-installed or portable navigation device; or
 4. a driver using a wireless communication device in the course of the driver's duties while operating an emergency or a public safety vehicle.

Use of Wireless Communication Devices While Driving or Bicycling Prohibited – Proposed Ordinance 2013-11 Traffic Code 9-01-001-0013

- Violations

- All violations shall be civil traffic violations.

- If a person violates this section and the person is not involved in a motor vehicle accident, the person shall be subject to a civil penalty of not less than one hundred dollars plus any other penalty assessments or surcharges as authorized by law.
 - If a person violates this section and the person is involved in a motor vehicle accident, the person shall be subject to a civil penalty of not less than two hundred fifty dollars plus any other penalty assessments or surcharges as authorized by law.

Use of Wireless Communication Devices While Driving or Bicycling Prohibited – Proposed Ordinance

2013-11 Traffic Code 9-01-001-0013

- Path Forward and Decision Points
 - Approve as written
 - Modify
 - » Novice drivers only
 - » Hand's free
 - » Any Distraction
 - » City Employee Policy
 - Wait for State Legislature
 - Education Campaign

CITY COUNCIL REPORT

DATE: June 27, 2012

TO: Mayor and Council

FROM: Mark G. Landsiedel, Community Development Director,
Jeff Bauman, Traffic Engineer

CC: Kevin Burke, Jerene Watson, Jim Wine, Department Directors

SUBJECT: Response to a request from Councilmember Oravits regarding the
Proposed Prohibition on Texting While Driving Ordinance.

This report is in response to Councilmember Oravits regarding a request on information relating to the Transportation Commission's proposed Prohibition on Texting While Driving Ordinance.

DISCUSSION

In October 2009 the Transportation Commission requested Staff to investigate the options for creating a Citywide Texting While Driving ban. Staff researched the topic and found that at the State and Federal levels there was quite a bit of activity and there seemed to be momentum enough that a Federal or State prohibition was imminent. Staff recommended to the Commission that they wait and see how the Federal and State proposals progressed, instead of moving forward with a local ordinance.

After several months past and the State and Federal initiatives did not move forward Staff brought a draft ordinance to the Commission. The Transportation Commission in January 2012 approved the language in the proposed ordinance.

Shortly after the Commission's approval another proposal at the State level began moving through the system and the City's proposed ordinance was again put on hold. The State has now concluded its session without enacting a texting while driving prohibition. The next step in this process will be a presentation on the proposed ordinance at a future City Council Meeting.

Attached is the draft language for the proposed Texting While Driving Prohibition.

RECOMMENDATION / CONCLUSION

This report is for information only.

ORDINANCE NO. 2011-

AN ORDINANCE AMENDING TITLE 9, TRAFFIC, BY AMENDING CHAPTER 9-01, TRAFFIC CODE, BY ADDING A NEW SECTION 9-01-001-0012, USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING PROHIBITED; EXCEPTIONS; AND PROVIDING FOR PENALTIES.

WHEREAS, while there is ample research regarding the dangers of distracted driving generally, there is an increasing amount of evidence showing that text messaging is the most dangerous driver distraction of all; and

WHEREAS, a University of Utah study concluded that distracted driving caused by drivers using hand held cell phones reduce a driver's reaction time as much as having a blood alcohol concentration of .08, the legal limit in the State of Arizona; and

WHEREAS, in 2009 the National Safety Council called for a ban on the use of cell phones by drivers of motor vehicles; and

WHEREAS, in 2008, 5,870 people lost their lives, and an estimated 515,000 people were injured, in police-reported crashes in which at least one form of driver distraction was reported on the accident report; and

WHEREAS, according to the National Safety Council, on any given day in 2008 more than 800,000 vehicles were driven by someone using a hand held cell phone, and government and insurance research shows that it is the youngest and most inexperienced drivers, who are already in more than their share of road accidents and deaths, who use such devices while driving most; and

WHEREAS, according to a 2006 study by Nationwide Insurance, 19 per cent of drivers use text messaging while at the wheel while 37 per cent of drivers aged 18 to 27 text while driving; and

WHEREAS, each year, 21 per cent of fatal car crashes involving teenagers between the ages of 16 and 19 were the result of cell phone use and this statistic is anticipated to grow by as much as 4 per cent each year; and

WHEREAS, in a 2009 survey, a Car and Driver Magazine study found that a legally intoxicated individual travelling at 70 mph braking suddenly traveled 4 feet beyond his baseline performance, while a sober individual reading an email traveled 36 feet beyond the baseline performance and 70 feet beyond while sending a text; and

WHEREAS, this Council finds that prohibiting text messaging while driving is necessary for the health and safety of Flagstaff citizens;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. Title 9, Traffic, Chapter 9-01, Traffic Code, is hereby amended by adding the following section:

9-01-001-0012. USE OF WIRELESS COMMUNICATION DEVICES WHILE DRIVING PROHIBITED; EXCEPTIONS.

A. As used in this section:

1. "Electronic message" means a self-contained piece of digital communication that is designed or intended to be transmitted between physical devices. An electronic message includes, but is not limited to, a text based communication, a command or request to access an internet site, or other data that uses a commonly recognized electronic communication protocol.
2. "Wireless communication device" means any portable electronic device capable of transmitting or receiving data in the form of an electronic message or capable of accessing the internet, including but not limited to a wireless telephone, a text-messaging device, a personal digital assistant, or a personal computer.

B. No person shall operate a motor vehicle or a bicycle while using a wireless communication device to:

1. view, send, store or compose an electronic message;
2. send, read, create, play or interact with internet-based content.

For purposes of this section, "bicycle" shall have the same meaning as set forth in Flagstaff City Code Section 9-05-001-0002, Definitions.

C. This section shall not apply to:

1. a driver using a hands-free device; or
2. a driver using a wireless communication device while the bicycle or motor vehicle is stopped, parked or standing and is removed from the flow of traffic, or is stopped due to the inoperability of the bicycle or vehicle; or
3. a driver using a wireless communication device to report a health or safety emergency; or
4. a driver using a factory-installed or portable navigation device; or
5. a driver using a wireless communication device in the course of the driver's duties while operating an emergency or a public safety vehicle.

D. A violation of this section shall be a civil traffic violation.

E. If a person violates this section and the person is not involved in a motor vehicle accident, the person shall be subject to a civil penalty of not less than one hundred dollars plus any other penalty assessments or surcharges as authorized by law.

- F. If a person violates this section and the person is involved in a motor vehicle accident, the person shall be subject to a civil penalty of not less than two hundred fifty dollars plus any other penalty assessments or surcharges as authorized by law.
- G. If a person is cited for violating this section, the person is involved in a motor vehicle accident and a written report is required by law, the law enforcement personnel investigating the accident shall indicate on the written accident form the use of a wireless communication device at the time of the accident.

PASSED AND ADOPTED by the City Council and approved by the Mayor of the City of Flagstaff this _____ day of _____, 2011.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Memorandum

6.

CITY OF FLAGSTAFF

To: The Honorable Mayor and Council
From: David Wessel, Metro Planning Org Manager
Date: 04/24/2013
Meeting Date: 04/30/2013



TITLE:

Arizona Department of Transportation Consultation with Rural Elected Officials.

DESIRED OUTCOME:

City Council and administration will be made aware of forthcoming issues facing ADOT and projects scheduled for the region. Council and administration will have the opportunity to ask questions and provide input to ADOT, especially on the draft 5-Year Construction Program.

INFORMATION:

BACKGROUND

Rural Consultation is:

- * A federal compliance requirement for ADOT, ADOT staff will present information
- * Targets rural elected officials to assure equitable access, information and influence on ADOT programs
- * Occurs annually

The ADOT 5-Year Construction Program is:

- * Developed collaboratively with:
 - ADOT Intermodal Transportation Division, Financial Management Services, Multimodal Planning Division
 - Regional Partners - such as FMPO, NACOT, cities and counties
- * Demonstrates how federal and state dollars will be spent over the next five years
- * Approved annually, Fiscal year starts each July 1
- * Must be fiscally constrained

KEY CONSIDERATIONS:

- Unprecedented 3 options for “Greater Arizona” to consider

Option	Preserved miles	Interstate Quality maintained to:	Major Projects	Bridge Projects
A – Maint.	690	2031	1	39
B – Project	458	2012	9	25

- No capital projects are scheduled for the FMPO region
- \$385 million fund loss to current ADOT 5-year program
 - HURF revenues down
 - Federal funding down
- Input opportunities
 - Rural consultation: 4/25/13 NACOG
 - Rural consultation: 4/30/13 Flagstaff City Council (Short presentation)
 - Arizona State Transportation Board Hearing: 5/10/13 Flagstaff Council Chambers, 9 a.m.
- Policy emphasis by MAP-21 and State long range plan for preservation
- SEE ADOT POWER POINT PRESENTATION

Attachments: ADOT 5-Yr Plan Draft

Form Review

Inbox	Reviewed By	Date
Community Development Director	Mark Landsiedel	04/24/2013 12:09 PM
DCM - Jerene Watson	Jerene Watson	04/24/2013 12:37 PM
Form Started By: David Wessel		Started On: 04/24/2013 08:40 AM
Final Approval Date: 04/24/2013		

FY 2014 – 2018 Tentative Five-Year Transportation Facilities Construction Program

Michael Kies, PE
Multimodal Planning Division

ADOT

◀ ◀ 1 ▶ ▶

Background

- ▶ Developed collaboratively with ITD, FMS, MPD and Regional Partners
- ▶ Demonstrates how federal and state dollars will be spent over the next five years
- ▶ Approved annually
- ▶ Fiscal year starts each July 1
- ▶ Must be fiscally constrained

ADOT

◀ ◀ 2 ▶ ▶

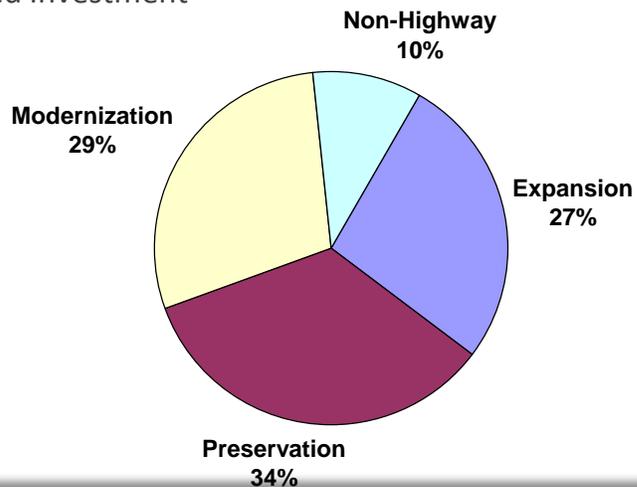
MAP-21

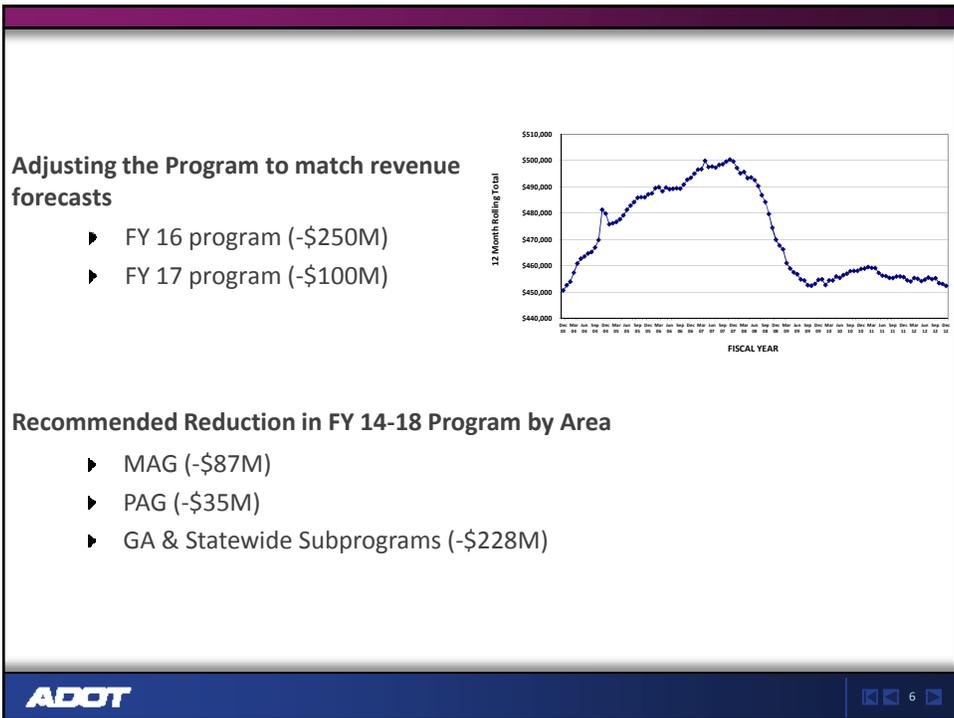
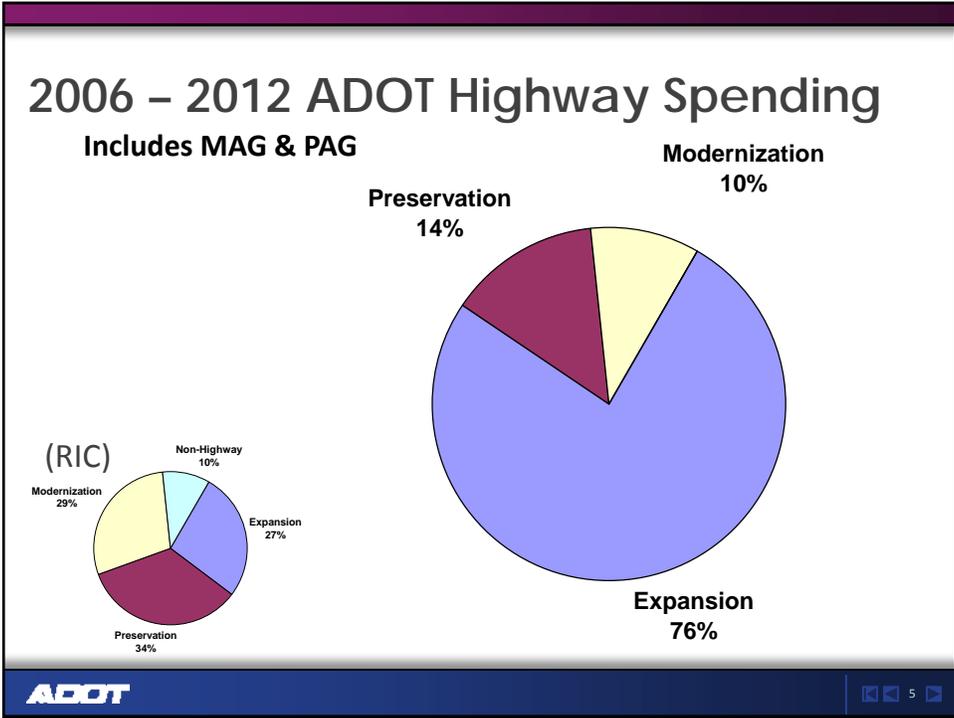
- ▶ Federal Transportation Reauthorization; enacted October 1, 2012
- ▶ Requires a National Highway Performance Program
 - “It is in the interest of the United States to focus the Federal-aid highway program on the following national goals:”*
 - Safety
 - Infrastructure Condition
 - Congestion Reduction
 - System Reliability
 - Freight Movement and Economic Vitality
 - Environmental Sustainability
- ▶ Preparation for MAP-21 Performance Program
 - ADOT’s Long Range Plan
 - Linking Planning to Programming (P2P)
 - Asset Management



ADOT’s Long Range Plan

- ▶ Recommended Investment Choice (RIC)





Adjusting the Program to match revenue forecasts

- ▶ FY 16 program (-\$250M)
- ▶ FY 17 program (-\$100M)

Recommended Reduction in FY 14-18 Program by Area

- ▶ MAG (-\$87M)
- ▶ PAG (-\$35M)
- ▶ GA & Statewide Subprograms (-\$228M)

Developed 3 Investment Scenarios for GA & Statewide Subprogram Spending

ADOT

Reduced Revenue

Program	Total Revenue	Category	Amount	Percentage
FY 2009 to FY 2013 Program	\$2,589,000	Preservation	\$1,650,000	65%
		Expansion	\$915,000	31%
		Non Highway	\$6,000	1%
		Modernization	\$18,000	3%
FY 2014 to FY 2018 Program	\$1,929,516	Reduced Revenue	\$577,000 - \$631,000	29% - 33%
		Preservation	\$690,000 - \$896,000	65% - 81%
		Expansion	\$186,000 - \$352,000	12% - 33%
		Non Highway	\$2,500	.5%
		Modernization	\$9,000 - \$19,000	2% - 10%

ADOT

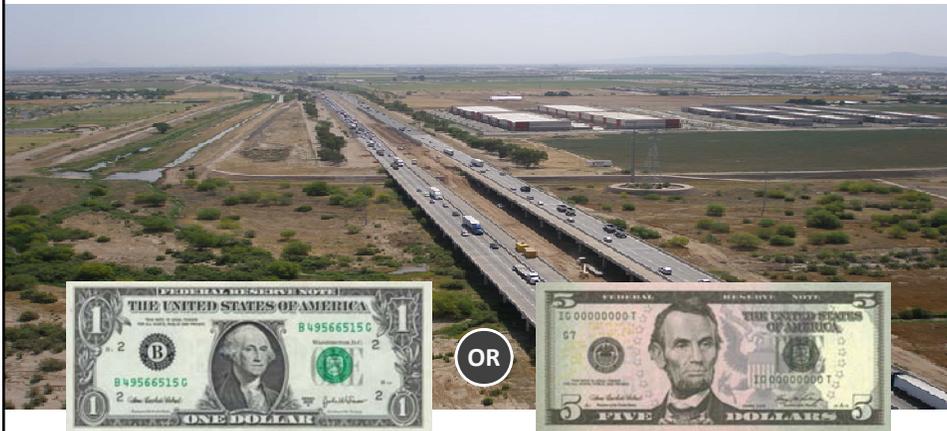
\$18.4 Billion = Value of State Highway System Infrastructure



Without a commitment to preservation, the system would cost \$100 billion to replace.



We have a choice.



**Spend one dollar now on preservation ...
or five dollars down the road for replacement.**

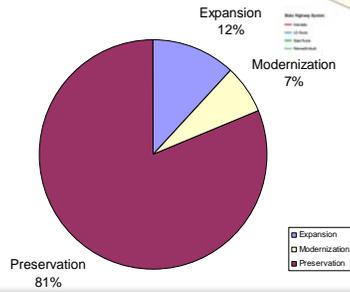


GA & Statewide Subprogram Scenarios

► Scenario A: Focus on Preservation

- 1 major project
- 81 preservation projects (2014-2016)
- 39 bridge projects
- 690 miles of pavement projects
- Preservation = \$184M per year (avg.)
- Maintains acceptable interstate highway pavement quality to 2031

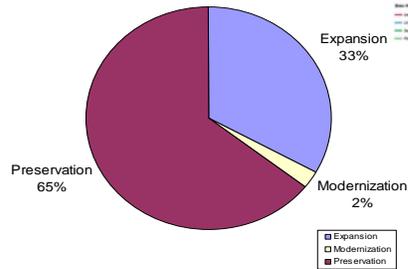
- SR-89, Deep Well Ranch Road to South Chino Valley Limits (\$18 M)



GA & Statewide Subprogram Scenarios

► Scenario B: Focus on Major Projects

- 9 major projects (2014-2017)
- 25 bridge projects (2014-2016)
- 458 miles of pavement projects
- Preservation = \$142M per year (avg.)
- Maintains acceptable interstate highway pavement quality to 2017



Greater Arizona Projects

● Remain in Program

SR89, Deep Well Ranch Road to Chino Valley (FY 14) **\$18 M**

US95 Fortuna Wash Bridge (FY 15) **\$13.5 M**

I-10 Ehrenberg POE (FY 16) **\$20 M**

US93 Carrow to Stephens (FY 17) **\$22 M**

I-8, Mohawk Rest Area (FY 15) **\$20 M**

US60, Silver King Section (FY 15) **\$45M**

SR89, Jct. 89A to Deep Well Ranch Road (FY 16) **\$15 M**

SR260, Lion Springs Section (FY 17) **\$40 M**

13

GA & Statewide Subprogram Scenarios

► **Scenario C: Preservation and Major Projects**

- 4 major projects (2014-2017)
- 39 bridge projects (2014-2018)
- 524 miles of pavement projects
- Preservation = \$149M per year (avg.)
- Maintains acceptable interstate highway pavement quality to 2021

14

Greater Arizona Projects

● Remain in Program

SR89, Deep Well Ranch Road to Chino Valley (FY 14) \$18 M
 US95 Fortuna Wash Bridge (FY 15) \$13.5 M
 I-10 Ehrenberg POE (FY 16) \$20 M
 US93 Carrow to Stephens (FY 17) \$22 M

● Defer to Out Year

I-8, Mohawk Rest Area \$20 M
 US60, Silver King Section \$45M
 SR89, Jct. 89A to Deep Well Ranch Road \$15M
 SR260, Lion Springs Section \$40 M

State Highway System
 Interstate
 US Route
 State Route
 Planned/Unbuilt

◀ 15 ▶

FY 14 to FY 18 Program

▶ Statewide Program (without PAG/MAG projects)

Scenario A

Category	Percentage
Preservation	81%
Expansion	12%
Modernization	7%

Scenario B

Category	Percentage
Preservation	65%
Expansion	33%
Modernization	2%

Scenario C

Category	Percentage
Preservation	75%
Expansion	15%
Modernization	10%

◀ 16 ▶

Summary of the Program FY14-FY18

- ▶ Tentative Program Available for Public Comment
AZDOT.GOV
- ▶ Reduced program in FY 16 & 17 by \$350 Million

- ▶ Public Hearings on Tentative Program
- ▶ *STB Meeting May 10th, Flagstaff (9 a.m. Flagstaff City Council Chambers)*
- ▶ *Comments Due by May 17th*

Questions??

Memorandum

7.

CITY OF FLAGSTAFF



To: The Honorable Mayor and Council
From: Brad Hill, Utilities Director
Date: 03/28/2013
Meeting Date: 04/30/2013

TITLE:

~~Presentation on Principles of Sound Water Management – Water Policies: Recharge & Recovery and Water Conservation~~ REMOVED FROM AGENDA.*

DESIRED OUTCOME:

For review and provide staff direction

INFORMATION:

The purpose for developing the Principles of Sound Water Management - Water Policies Chapter to the Utilities Integrated Master Plan is to provide the fundamental principles and guidelines for how the Utilities Division achieves the goals and objectives outlined by City Council and upper City Management. The objectives of these policies are to preserve the public's trust in our water, wastewater and stormwater systems, guide strategic long-term planning and demonstrate leadership in the stewardship of our limited natural resources.

Staff has worked with the Water Commission over the past two (2) years to define the concepts and agreed upon the language for each policy. At their November 15, 2012 Commission meeting, they approved the attached document and recommended staff to bring the policies forward to City Council for your consideration and adoption.

Staff will review policy B5 - Recharge & Recovery and C - Water Conservation

Attachments: [Water Policy 11/15/12](#)

Form Review

Inbox	Reviewed By	Date
Utilites Director (Originator)	Brad Hill	03/28/2013 11:35 AM
DCM - Josh Copley	Josh Copley	03/29/2013 09:29 AM
Form Started By: Brad Hill		Started On: 03/28/2013 11:24 AM

Final Approval Date: 03/29/2013

UTILITIES INTEGRATED MASTER PLAN

Principles of Sound Water Management Water Policies Chapter



November 15, 2012
City of Flagstaff - Utilities Division

DRAFT

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DRAFT

Acknowledgments

City Council

Gerald W. Nabours
Mayor

Coral Evans
Vice Mayor

Celia Barotz

Karla Brewster

Jeff Oravits

Scott Overton

Mark Woodson

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Brian Ketter
Chair

Hanna Cortner

Brad Garner

Dick Kersey

Jim McCarthy

John Nowakowski

Bob Shinham

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Utilities Program Manager

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Zoning Code Administrator

DRAFT

Introduction

The primary purpose of the Utilities Integrated Master Plan - Water Policy chapter is to provide the fundamental principles and guidelines for how the Utilities Division achieves the goals and objectives outlined by City Council and upper City Management. The objective of these policies is to: preserve the public's trust in our water, sewer and stormwater systems through compliance with state and federal water quality, water management and flood plain management laws; guide strategic long-term planning; and demonstrate leadership in the stewardship of our limited natural resources. These policies emphasize the importance of water conservation, the protection of our natural environment and the development and maintenance of a redundant water supply that will assist in satisfying demand during a prolonged drought.

The principles of sound water management contained within these water policies will support and build on the policies contained within the Water Element section of the Regional Land Use and Transportation plan and its subsequent updates. These policies will provide guidance to staff on how most effectively to develop, recommend and implement the numerous programs administered by the Utilities Division.

The Utilities Division is comprised of two Enterprise Funds; water, wastewater and reclaimed water is one fund; the second separate fund is stormwater. The fiscal intent is to balance expenses (O&M and Capital) versus income from rates and capacity fees.

These policies refer to conducting periodic master planning efforts for water resources, and Utilities infrastructure including the water system, wastewater system, reclaimed water system, stormwater drainage and technology pertaining to the water and sewer system's operation and control also known as a Supervisory Control and Data Acquisition or SCADA. All master planning efforts should take into account the Utilities Division's potential impacts, vulnerability and assessment of risk from climate variability and weather related effects. The goal should be to build in resilience in the operations of the Utilities Division in order to protect against the risk from climate variability and weather related impacts to the City's water supplies and Utilities infrastructure. The City undertook a Resiliency and Preparedness study in 2012 and the results and recommendations of this study should be considered in all master planning efforts.

DRAFT

A. Finance

The City has an important responsibility to its citizens to carefully account for public funds, to manage its finances wisely, and to plan for the adequate funding of services desired by the public including water, sewer, reclaimed water services and stormwater management. Therefore, the Water-Sewer-Reclaimed Water Utility and the Stormwater Utility shall be financially self-supporting enterprises with all costs associated with each operation to be funded from revenues derived from the sale of potable water or reclaimed water or the assessment of fees for sewer system or storm water system services.

A1 Enterprise Funding: Water – Sewer – Reclaimed Water Utility

Policy A1.1 The annual payment for debt service should not exceed 20% of total annual Operating Revenues.

Policy A1.2 The Water-Sewer-Reclaimed Water Utility shall have a goal of maintaining more than 25% of the total estimated annual Operational Revenues in reserve for known future obligations plus an allowance for unbudgeted contingencies. This policy would not include Federal Support for disaster relief.

Policy A1.3 In the event that the Mayor and City Council determine that there exists the need to set aside a minimum amount of water to be sold at a reduced rate or to grant some other forms of subsidy for users within the City's service area, the costs of such subsidies shall be from other sources and not from water rates, fees or charges.

Policy A1.4 The City shall not enter into a development agreement for any purpose that permits the developer to pay reduced water rates and/or reduced capacity fees unless such rates are collected from a non-utility source.

Policy A1.5 The City's policies on the collection of payments for water and sewer capacity fees, water meter fees, service charges and other fees shall be applied consistently and as follows:

Strategy A1.5a A customer must provide proof that either a building or grading permit application was submitted to the Community Development Division prior to paying any fees.

Strategy A1.5b All fees must be paid in full at the time of payment.

Strategy A1.5c If fees are scheduled to change, the customer has until one business day prior to the scheduled fee change to pay all fees under the current fee schedule. A customer may not use proof of an application submission prior to the fee schedule change to

pay fees under the previous fee schedule after the fee schedule change date.

Strategy A1.5d If a customer pays all fees but does not install the water meter and connect to City services before the building permit expires, the customer is subject to the latest fee schedule and any increase in fees will be assessed on the location. A decrease in fees will not be recalculated and refunded.

Strategy A1.5e If a customer changes the size of the water meter after all fees are paid, the customer is subject to the latest fee schedule and any increase in fees will be assessed on the location.

Strategy A1.5f All capacity fees are non-refundable and non-transferable from one parcel to another parcel.

Policy A 1.6 The City shall have a goal of full Cost Recovery for reclaimed water that is delivered outside of the City's incorporated limits.

A2 Enterprise Funding: Stormwater Utility

Policy A2.1 The Stormwater Utility shall collect revenues from properties with impervious surfaces according to an Equivalent Rate Unit (ERU) basis (See definition that follows). The Stormwater Utility shall have a goal of maintaining more than 10% of the total estimated annual Operational Revenues in reserve for known future obligations plus an allowance for unbudgeted contingencies.

Policy A2.2 The Stormwater Utility shall issue runoff credits for properties implementing eligible stormwater catchment systems as further described in the stormwater manual.

A3 Rate Design Elements: Water – Sewer – Reclaimed Water

Policy A3.1 Water, sewer and reclaimed water rates should be set on a cost-of-service basis. Commodity charges should reflect the costs across all customer classes. Rate structures should be designed with the goal of encouraging water conservation. The design of recommended rates should include provisions that will provide a minimum of 25% of revenues from fixed costs and the remainder from commodity charges. The design should also anticipate a balance between conservation (commodity charges) and revenue stabilization (fixed charges).

Policy A 3.2 Water, sewer and reclaimed water rates shall be internally reviewed annually. Any anticipated changes in the rate structure should be implemented in a

timely manner in order to avoid large-scale shifts in rates. A formal rate study will be performed every 3 years.

Policy A 3.3 Water, sewer and reclaimed water fixed and variable rates for customers located outside the City limits shall be always be over and above the City's charges to customers within City limits and will be set during a formal rate study as per Policy A.3.2. The purpose of the increased charge is to capture those hidden costs that customers within the City limits pay and non-residents do not such as fixed costs (e.g., water meter charges).

Policy A 3.4 Reclaimed water rates should be set on a cost-of-service basis. In the event that cost-of-service rates discourage demand for reclaimed water, the rate for purchase of reclaimed water shall be adjusted to encourage its use. The adjusted rate will be subsidized by the water rate customers.

Policy A 3.5 Capital projects which would require the utility to take on debt greater than Policy A1.1 are not financially sustainable due to their potential impact on existing rates and capacity fees. Financing for large projects may require funding support from such sources as the federal government, state government, new taxing district or authority, public-private partnership, sales tax or a combination of these sources.

A4 Private Water Company Acquisition

Policy A 4.1 The City of Flagstaff shall have a goal of becoming the sole retail water, sewer and reclaimed water provider within its incorporated boundaries. From time to time, the City may have opportunities to purchase other existing water delivery or sewer collection systems adjacent to or near the City's existing service area. The following criteria will be used to evaluate such opportunities:

- Strategy A4.1a The purchase must prove to be beneficial to the customers of the Utility.
- Strategy A4.1b The private water company must possess sufficient water supplies of sufficient capacity that meet applicable federal and state drinking water quality standards.
- Strategy A4.1c The components of the private water company's infrastructure (water production, pipelines, fire hydrants, etc.) must be constructed to existing City utility standards or be upgraded to those standards prior to acquisition.
- Strategy A4.1d The purchase of the private water company must not result in a net increase of costs to City water, sewer or reclaimed water customers.

Strategy A4.1e The new service area shall be within existing City limits or be annexed into the City of Flagstaff prior to purchase.

Definitions:

Cost of Service: An evaluation process by which revenue requirements are used to generate a system of fair and equitable costs in proportion to the service received for each user classification.

Equivalent Rate Unit (ERU): The basic unit for the computation of stormwater service fees. All property in the City is subject to the periodic stormwater management utility service charge. The fee is based on number of ERUs, each ERU is equal to 1,500 square feet of impervious area.

Fund Balance: An account defined as the difference between the assets and liabilities of a fund. It is used as a measure of the amount available to budget or spend in the future.

Future Obligations: Previously identified capital improvement projects, including those approved capital projects contained in the five-year Capital Improvement Program.

Operational Revenues: Income derived from sources related to the utilities everyday business operations. Operational revenues consist of revenues from sales of a commodity (water, sewer, reclaimed water) and miscellaneous service revenues. For example, water sales and installation services generate on-going operating revenue, whereas the sale of City property is considered to be an unexpected, or "one-time", event.

B. Water Resource Management

B1 Use of Renewable Water Resources

Maximizing the use of renewable water supplies is an important water management tool to minimize the long-term impacts of over-drafting a community's groundwater resources. Examples of local renewable water supplies for the City of Flagstaff include surface water from Upper Lake Mary, spring flow from the Inner Basin and directly delivered reclaimed water. Utilizing renewable water resources as the City's primary supplies will not only help Flagstaff be sustainable but it will also save groundwater for times when some of these surface water supplies are unavailable or severely limited due to prolonged drought conditions.

Policy B1.1 The City should maximize the use and delivery of local renewable water supplies that are available in any given year.

Policy B1.2 The City should consider developing a diverse renewable water supply portfolio to ensure redundancy in the event one supply is unavailable or severely limited due to prolonged drought conditions. A diverse water supply shall consider the following:

Strategy B1.2a The types of water supplies (e.g. groundwater, surface water) and the types of production infrastructure (e.g. wells, water treatment plants) necessary to treat and deliver each water supply.

Strategy B1.2b The water supplies should be hydrologically separate and distinct (e.g., groundwater, surface water, reclaimed water).

Strategy B1.2c The temporal aspect of the water supply for redundancy. For example, will the redundant water supply be available for a long time (i.e. groundwater) or for a shorter time frame (e.g. surface water in Lake Mary). When considering production infrastructure (i.e. wells), the redundancy should be available permanently.

Strategy B1.2d The timing and costs associated with maximizing these renewable resources.

B2 Water Adequacy – Adequate Water Supply Program

This policy relates to the City of Flagstaff maintaining its Designation of Adequate Water Supply (Designation) by the Arizona Department of Water Resources (ADWR). The primary purpose to maintain the Designation is to ensure that all new development within City limits has a proven 100-year water supply prior to construction. The benefit to the

community is to ensure the public's trust in the City's water resources and provide for long-term economic vitality and sustainability. This policy relates strictly to the tracking of and commitment to water resources and does not address the infrastructure requirements to deliver and utilize the water supply. Infrastructure requirements are addressed in Policy F.1 – Utilities Master Planning.

Policy B.2.1 Communication: The Utilities Division will provide the primary point of contact for all staff-level communication with both the ADWR and U.S. Bureau of Reclamation on water resources and water conservation regulatory related issues.

Policy B.2.2 Adequate Water Supply Program: the City shall develop a water management program to come into and remain in compliance with the Adequate Water Supply Program by demonstrating, at a minimum, that its water supplies are physically, legally and continuously available for at least 100-years.

Strategy B2.2a The Utilities Division shall conduct hydrologic studies necessary to estimate its 100-year volume of water supplies considering groundwater, surface water and reclaimed water per state regulations. These studies should at a minimum include partnering in the development, maintenance and update of a computerized groundwater flow model of the Coconino Plateau's regional hydrology in order to assist in evaluating the sustainability of the City's groundwater supplies over the long-term, their resilience from drought and to support the City's Designation of Adequate Water Supply. These studies should be reviewed and updated on a regular basis as more technical information becomes available.

Strategy B2.2b The Utilities Division will use data developed within the Integrated Utilities Master Plan - Water Resources Chapter (Policy F.1) to estimate the City's water demand needs at build-out.

Strategy B2.2c The City's water supplies, as determined by Policy B.2.2a, shall be dedicated to all existing developed parcels, new projects developed in accordance with their zoning designation on the Zoning Map, and new Subdivision Final Plats on a first come, first serve basis. The City should also consider the economic value of water and recommend a pre-defined volume of water to set-aside that is sufficient to encourage and maintain economic development and vitality.

Strategy B2.3d For each new Subdivision Final Plat, Zoning Map Amendment or Major/Minor Amendment to the Regional Plan an estimate of the annual average and peak day volume of water for the

development will be at built-out will be provided. The projected annual average water needs shall be calculated using the City of Flagstaff Engineering Standards and/or the water use metrics contained within the Utilities Department Integrated Water Master Plan – Water Resource Chapter. The build-out estimates, when appropriate, should consider additional water conservation measures that may reduce the development's projected annual average water needs into the future.

Strategy B2.3e The Utilities Division will commit, track and set aside with different time periods the necessary annual average and peak day water supply for all new Subdivision Final Plats and new projects developed in accordance with their existing zoning designation on the Zoning Map. Annual average and peak day water supply for Major amendments shall also be tracked but not committed or set aside.

Strategy B2.3f The developer will be required to obtain a building or grading permit within the specified timeframes outlined below or risk losing the committed water resources:

- Subdivision Final Plat – there will no time limit on the reservation of the water resources committed for the subdivision as long as the City maintains its Designation of Adequate Water Supply with the Arizona Department of Water Resources
- Vacant Property Seeking Development Approval (e.g. Site Plan Review) – for all new development proposed consistent with the existing zoning as designated on the Zoning Map, there will no time limit on the reservation of the water resources committed as long as the City maintains its Designation of Adequate Water Supply with the Arizona Department of Water Resources
- Zoning Map Amendment and Minor Amendments to the Regional Plan – for such new development, water resources will only be committed for no longer than the time frame associated with the zone change approval within which the applicant has to commence construction (typically 2 years) as long as the City maintains its Designation of Adequate Water Supply with the Arizona Department of Water Resources.
- Major Amendments to the Regional Plan – there will be no reservation of committed water resources for these amendments.

This Strategy should only be applicable to commercial, industrial and multi-family developments and those residential subdivisions that contain six (6) or more individual lots. This policy is not applicable to a single lot land owner within a pre-existing built-out subdivision.

Strategy B2.2g The Community Development, Economic Vitality and Utilities Divisions will coordinate regarding the City's available uncommitted water resources that can be allocated to priority developments shown in the voter approved Regional Plan. This will occur before approving any new extension, variance, or other changes to any final site or construction plans that results in the allocation of water beyond that what was originally approved.

Policy B 2.3 Compliance: The City shall apply for and maintain its status as a Designated water provider as determined by the ADWR. Additionally, City of Flagstaff will submit the committed demands for each Subdivision Final Plat and permits granted for existing lot developments on an annual basis to the ADWR as currently required by law.

B3 Water Quality

The mission of the City of Flagstaff's Utilities Division is to professionally and cost effectively provide water, wastewater and stormwater services. This is accomplished by being recognized as a leader of excellence in water utility services. Drinking water safety is a primary concern of Utilities Division; safety shall be achieved by utilizing technology and qualified staff members to monitor production systems, sample the distribution system and evaluate opportunities to continually enhance the program while being cost effective to our customers. The City shall develop water quality programs that provide potable water which is treated, tested and safe for Flagstaff citizens, businesses and visitors and meets all current water quality regulations.

Wastewater quality shall be established through an active pretreatment and monitoring program which ensures the safety of the City's infrastructure and adherence to regulations. Reclamation facilities are designed to permit the use of reclaimed water for either direct reuse or indirect reuse and shall be monitored in accordance with each facility's permit. The City shall develop water quality programs that provide reclaimed water which is treated, tested and safe for Flagstaff citizens, businesses and visitors, and meets all current water quality regulations.

Water

Policy B 3.1 The City shall develop water treatment facilities which:

- a. Provide quality water which meets current federal regulations,
- b. Consider operational costs and water quality standards when determining treatment options, and
- c. Consider aesthetic characteristics such as taste, odor and residual chlorine in the design process of treatment options.

Policy B 3.2 The City shall maintain monitoring schedules which provide:

- a. Monitoring at each facility, both on-site and remotely, if applicable,
- b. Sampling schedules designed to monitor as early in the compliance cycle as possible,
- c. Sampling appropriately within the distribution system,
- d. Sampling results shared with residents in a timely fashion, and
- e. Compliance with Federal, State and Local regulations for each parameter of interest tested.

Policy B 3.3 The City shall maintain a compliance laboratory for both operational and compliance purposes, which provides rapid response to operations for routine testing where:

- a. Parameters that are tested shall minimize turn-a-round time,
- b. Parameters that are tested shall improve operational efficiency and effectiveness,
- c. Parameters that are tested will be cost effective for regulatory compliance,
- d. Verification of testing completed and each result will be in compliance with Federal, State and Local regulations,
- e. Water quality sampling data shall be managed using a computerized database management system to facilitate tracking, trending and archival of the information, and archival of the information.
- f. All laboratories used by the City shall be certified by the Arizona Department of Environmental Quality (ADEQ) for the parameters that are tested.

Policy B 3.4 The City shall maintain a cross connection program which requires all backflow devices within the City, except single family homes unless equipped with a fire sprinkler system, to be tested annually and in compliance with Federal, State and local regulations. All testing and permitting costs will be the responsibility of the owner.

Wastewater

Policy B 3.5 The City shall maintain a pretreatment program which adheres to U.S. Environmental Protection Agency (USEPA) requirements. This program shall perform the following at a minimum:

- a. Maintain an annual inspection, monitoring and sample schedule which protects the City's infrastructure,
- b. Ensure businesses do not discharge wastes which can lead to sanitary sewer overflows, and

- c. Ensure businesses do not discharge waste which can compromise the collection infrastructure, treatment facility, impair operators or cause reclaimed water to fail to meet permit requirements.

Policy B 3.6 The City shall develop wastewater treatment facilities which:

- a. Adhere to Aquifer Protection and Arizona Pollutant Discharge Elimination System permits issued by the ADEQ,
- b. Provide the best use of reclaimed water while ensuring compliance to the facility's regulatory permit(s),
- c. Allow the greatest flexibility in plant operations,
- d. Minimize operational costs, and
- e. Provide reclaimed water at a minimum quality of A+.

Policy B 3.7 The City shall develop appropriate emergency response plans that:

- a. Coordinate with multiple agencies to facilitate communication and minimize challenges in the event of an emergency,
- b. Develop cooperative agreements with surrounding organizations or communities, if appropriate, and
- e. Review facility emergency operations plans on an annual basis to ensure appropriate response.

B4 Water Reclamation – Reclaimed Water

The State of Arizona is recognized as a national leader in the management and regulation of reclaimed water which has led to its increased use across the State. The Governor's Blue Ribbon Panel Report on Water Sustainability states that reclaimed water has significantly increased in use over the past two decades and now represents 3% of the total water used throughout the State in 2012. During this same time period, the City of Flagstaff has been known within Arizona as a leader in reclaimed water use and it now represents 20% of total water used within the City. The treatment, delivery and use of reclaimed water will continue to play a significant role in the sustainability of our community today and into the future.

Definitions

- i. Direct Reuse: in accordance with Arizona Administrative Code (A.A.C.) R18-9-701, Direct reuse means the beneficial use of reclaimed water for a purpose allowed by state law. The delivery of this water supply is accomplished via a separate distribution system, commonly colored purple. The uses of Class A+ reclaimed water that are common to Flagstaff and are listed in A.A.C. R18-11-309-Table A include: residential or school ground landscape irrigation,

irrigation of food crops, toilet and urinal flushing, fire protection systems, snowmaking, golf course irrigation, dust control, and street cleaning. Direct reuse does not include water for potable consumption.

- ii. Groundwater Recharge: in accordance with Arizona Revised Statutes groundwater recharge is conducted utilizing either a Constructed (§45-802.01.4) or a Managed (§45-802.01.12) Underground Storage Facility (USF) that has the intent to storing water underground. In general, a Constructed USF is an engineered and designed recharge facility while a Managed USF simply utilizes the natural channel of a stream (e.g., Rio de Flag) to recharge the groundwater aquifer.
- iii. Indirect Reuse: in accordance with industry standards and for the purposes of this policy, Indirect Reuse means the use of reclaimed water that has been previously recharged and stored underground; that has been co-mingled or mixed with the natural groundwater system; then withdrawn or recovered via water supply wells. This co-mingled mix of water meets all Safe Drinking Water Act requirements.
- iv. Reclaimed Water: in accordance with A.A.C. R18-9-701, Reclaimed water means water that has been treated or processed by a wastewater treatment plant or an on-site wastewater treatment facility.
- v. Recovery: in accordance with Arizona Revised Statutes, recovery of stored water is the withdrawal of a water supply (e.g., reclaimed water) that has been previously recharged underground pursuant to applicable state law (§45-831.01 - §45-836.01).

Policy B 4.1 The Utilities Division should remain engaged in regional, state and national discussions on the use and regulation of reclaimed water regarding the management and quality of the water supply and the state of the science of treatment technologies. This should be accomplished by remaining active at a minimum in the national WaterReuse Association and its Arizona chapter (WaterReuse Arizona), Water Environment Federation and the national American Water Works Association and its Arizona section (AZ Water).

Policy B 4.2 The Utilities Division should design and construct water reclamation facilities that treat and produce reclaimed water to the highest water quality standards permitted by Federal and State law. Additionally, the Utilities Division should evaluate the economic costs and environmental and health-risk benefits of implementing additional treatment alternatives that are beyond existing laws.

Policy B 4.3 The Utilities Division should continue to recommend updates to policies and ordinances that encourage the Direct Reuse of reclaimed water where appropriate and consistent with State and Federal laws.

Policy B 4.4 The Utilities Division should develop a Groundwater Recharge & Recovery program that is in compliance with applicable state laws (§Title 45 Chapter 3.1 Underground Water Storage and Replenishment). The purpose of this program would be to optimize the management and use of the City's unused reclaimed water.

Policy B 4.5 The Utilities Division should maintain an educational program that focuses on reclaimed water, its safety, quality, public perception and beneficial uses.

Policy B 4.6 Reclaimed Water System Capacity Allocation Program: The Utilities Division shall track and monitor existing and proposed peak day and average annual reclaimed water deliveries in order to prevent exceeding the City's ability to provide reliable service. When system capacity has been approached, the Utilities Director will stop issuing any new Reclaimed Water Agreements until such time that additional reclaimed water capacity is available.

Policy B 4.7 The Utilities Division should require each user to have a direct delivered Reclaimed Water Agreement. These Agreements should contain at a minimum; customer name, address, place of use, point of delivery, delivery schedule (i.e., maximum peak day, maximum monthly and annual volume), commodity rate, termination date and other applicable information as appropriate. If reclaimed water is over allocated then we will deny additional customers.

Policy B 4.8 Golf courses and amenity lakes shall use Direct Reuse of reclaimed water.

Policy B 4.9 In conjunction with Policy A.3.4 within Section Rate Design Elements: Water–Sewer–Reclaimed Water; Reclaimed water rates should be set on a cost-of-service basis. To the extent these rates do not provide adequate price incentive, the price of reclaimed water shall be based on a value which encourages its use and will be subsidized by the water rate customers.

Policy B 4.10 The priority uses or future allocations of reclaimed water are:

Water Conservation. Conserve potable water through the Direct Reuse of reclaimed water by converting existing uses of potable water to reclaimed water, where appropriate.

Public Benefit. The Direct or Indirect Reuse of reclaimed water should be encouraged to sustain or promote economic vitality, augment the City's water supply (e.g., Groundwater Recharge and Recovery) and sustain riparian habitat, wetlands or ponds.

Examples of such Direct and Indirect Reuse of reclaimed water in no specific order of priority:

Uses of reclaimed water that are identified and approved by the ADEQ (i.e., AAC R18-11-309. Table A).

Riparian habitat, wetlands & ponds: Use of reclaimed water to support areas of vegetation that is dependent on saturated or moist soils along the banks of the Rio de Flag which is distinct from the predominant or typical landscape type.

Amenity Lakes or Ponds: Direct Reuse of reclaimed water to fill and maintain amenity or decorative lakes that have public access.

Landscaping: Irrigation of turf and other types of landscaping associated with public parks, cemeteries, schools, ball fields, golf courses.

Construction/Street cleaning: Use of reclaimed water for dust control or street sweeping on construction projects or City streets whether by private company, federal, state DOT or municipal use. This can be either through approved hydrant use or hauled water.

Commercial, Industrial and Manufacturing: Any commercial, industrial or manufacturing operation that uses reclaimed water for its processes.

Managed or Constructed Underground Storage (or recharge) Facilities: Storing reclaimed water underground for future use within permitted groundwater recharge facilities that are located within or adjacent to the Rio de Flag.

Recovery: Use of a City water supply well to withdraw or recover a mixed, co-mingled source of reclaimed water with groundwater. that has been previously stored underground pursuant to applicable state law.

B5 Recharge and Recovery

In order to ensure groundwater supplies are sustainable and resilient to the impacts from prolonged drought, the City should be involved in the recharge of its unused renewable water supplies. In addition, the City should plan and implement strategies to recover those renewable water supplies that are stored underground to meet its customers long-term water needs.

Policy B 5.1 The City should continue to develop local water recharge and recovery initiatives. These initiatives:

- a. Maximize the storage of the City's unused reclaimed water underground (recharge) by developing, constructing and permitting City-owned Underground Storage Facilities, where appropriate, through the Arizona Department of Water Resources.
- b. Capture and recover the stored reclaimed water through water supply wells located down-gradient and permitted as Recovery Wells through the Arizona Department of Water Resources.

Policy B 5.2 The City should remain engaged, informed and involved in state-wide and regional discussions regarding groundwater use, recharge and recovery.

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C. Water Conservation

The City of Flagstaff Water Conservation program provides customers with an educated awareness of water as a valuable resource. This program enables water use efficiency and less demand on our water supply resulting in reduced capital and operating costs for water production and wastewater treatment. Conservation also results in reduced energy needs for water production by reducing the amount of energy required to deliver water to our customers. A comprehensive and consistent water conservation and usage policy shall be developed that would include the best use of all the City's water resources while assuming a leadership role for Water Conservation in the community.

C1 Education

Policy C 1.1 The Water Conservation Section shall maintain a year-round water conservation program that provides outreach to its citizens. Program administrators shall participate and provide educational information at various events in the community and provide updates through the City of Flagstaff's website and other appropriate venues. The program shall promote Xeriscape and not "zeroscape" in landscape design.

C2 Water Use Restrictions and Regulatory Compliance

Policy C 2.1 the water conservation section develops and maintains an ordinance that shall require less water consumption per capita yet enables the consumer to maintain an aesthetically attractive, comfortable and clean environment.

Strategy C2.1a The Water Conservation Section shall also partner with the Community Development Division and the Utilities Stormwater Section to ensure compliance with the codes these programs enforce. The Water Conservation program shall collaborate with these programs to develop additional strategies or programs to achieve future reduction in per capita water use.

Strategy C2.1b The Water Conservation Section shall develop and maintain Strategy Levels in the ordinance that defines the severity of each water shortage level and required cutbacks with pre-defined criteria regarding when each level goes into effect.

Strategy C2.1c The Water Conservation program shall track water demand and consumption. This information shall be updated on a regular basis to be used in a variety of reports.

C3 Incentive Programs

Policy C3.1 The Water Conservation Section should consider and develop a rebate program in the form of monetary credit on a customer's water bill in order to encourage the further conservation of the City's water supplies.

Strategy C3.1a The criteria used to determine program products for rebates shall include at a minimum the water savings compared to the cost of implementing a specific water savings device (e.g. \$/gallons of water saved per unit device).

Strategy C3.1b Metrics related to the water conservation rebate program shall be calculated to determine effectiveness of such programs and assist in developing future program parameters. Devices that created the greatest water savings will be used in future rebate programs. Ineffective devices will be replaced with ones that yield better water savings.

C4 Regional Participation

Policy C4.1 The City of Flagstaff should participate in local and state-wide groups that promote water conservation.

Strategy C4.1a The City of Flagstaff shall partner with the appropriate local events that include water conservation.

Strategy C4.1b The City of Flagstaff shall attend informational meetings. That includes, but is not limited to, Arizona Department of Water Resources, InfoShare, and ReNEWS.

C5 Rainwater Harvesting

Policy C5.1 The Water Conservation program shall work closely with the Stormwater Section to insure the same goals of conserving water are addressed in each program and are supportive of each other.

C6 Support of Riparian Areas

Policy C6.1 The Water Conservation program should establish criteria on how unused reclaimed water will be used for the benefit of the environment and support of riparian needs into the future.

C7 Drought Planning

The City's renewable water supplies are often impacted by short-term changes in local precipitation and would be severely impacted by any long-term changes in regional climate. The City will maintain a Drought Contingency Plan within its Water Conservation ordinance in order to establish policies, rules and penalties to be implemented when a water deficiency condition has been declared.

- Policy C 7.1 The City shall maintain a Drought Contingency Plan and it should:
- a. Coincide with the Water Resources Master Plan,
 - b. Establish strategies and their goals, develop triggers for when each strategy shall be implemented,
 - c. Provide for authority and enforcement,
 - d. Communicate the difference between water conservation as a lifestyle and demand reduction as a drought response, and
 - e. Contain clear procedures on how the plan will be implemented, including provisions for informing the public.

- Policy C 7.2 The Drought Contingency Plan goals should be:
- a. To protect public health and safety,
 - b. Aid in community-wide economic security,
 - c. Provide sufficient water to meet the needs of the City of Flagstaff water customers,
 - d. Allocate the impacts and hardships caused by drought equitably,
 - e. Minimize the disruption to the economy so that jobs are protected and regional economic stability is preserved, and
 - f. Provide options for updating or amending the Drought Plan by the City Council.

- Policy C 7.3 The Drought Contingency Plan should define and establish triggers and water use restriction strategies.
- a. Consider defining multiple levels of water use restriction stages and strategies to reduce water consumption.
 - b. Consider defining triggers based upon infrastructure limitations.
 - c. Consider defining triggers based upon hydrologic supply limitations.

D. Stormwater

The responsibilities of the Utility's Stormwater Section are categorized into stormwater quantity (flood control), stormwater quality, and watershed management. Some activities, such as Low Impact Development (LID), which captures stormwater for reuse and infiltration, address both water quality and quantity.

In general, the Stormwater Section's activities include a variety of mandated compliance programs including the FEMA Flood Insurance Program and the EPA mandated National Pollutant Discharge Elimination System (NPDES). The Section also manages Master Planning efforts, enforces stormwater design standards, and responds to drainage complaints received from citizens. The Section delivers a capital improvement program for drainage infrastructure improvements as well as managing a drainage maintenance program.

D1 Compliance

Policy D1.1 The City shall make necessary and timely changes to ensure full compliance with Federal Emergency Management Association (FEMA) floodplain regulations, and the National Pollution Discharge Elimination System (NPDES) regulations administered by both the U.S. Environmental Protection Agency (USEPA) and the Arizona Department of Environmental Quality (ADEQ).

Policy D1.2 The City will maintain contact with FEMA, USEPA, and ADEQ to remain up-to-date on pending and adopted regulatory changes, ensure that changes to City policies and ordinances necessary to remain in compliance are adopted and implemented, and provide necessary training and public outreach to customers to assist with compliance.

D2 Flood Control

Policy D2.1 The City will continually strive to improve the ranking in the Community Rating System (CRS) in order to provide discounted flood insurance for the community.

Policy D2.2 The City will continually strive to improve the accuracy of Flood Insurance Rate Maps

Policy D2.3 The City will partner with the Emergency Operations Center (EOC), Streets and other emergency responders to develop detailed policies and procedures for local and regional flood response scenarios.

Policy D2.4 By working with the Streets Section, ensure proper inventory of the drainage infrastructure and provide necessary funding for future years based on system growth and need.

D3 Stormwater

Policy D3.1 The City shall conduct drainage master planning for all major (regulatory) watercourses in the City, adopt development standards that adhere to the results of the Master Plans, and explore funding sources for the construction of prioritized master plan projects.

Strategy D3.1a All public and private drainage infrastructure proposed to be constructed on watercourses included in the completed Master Plan should be constructed according to the results and recommendations within the Master Plan.

Strategy D3.2b The City shall work with the US Army Corps of Engineers to secure funding for completion of the project that addresses including but not limited to the upper Rio De Flag and Clay Avenue watercourses.

Policy D3.2 The City's Stormwater Management Design Manual shall contain current design and inspection requirements for private development drainages.

Policy D3.3 The City shall respond to drainage complaints within 24 hours of receipt and provide timely resolution.

Policy D3.4 The City's shall provide appropriate credits for the stormwater quantity and quality improvements outlined and periodically updated in the Stormwater Credit Manual.

Policy D3.5 The City shall promote the direct use of stormwater as a water conservation tool and develop best management practices to capture and use stormwater in a variety of ways for a variety of uses.

Policy D3.6 Drainage improvements should be designed to promote infiltration, when practical. The use of concrete and closed conduits shall be discouraged.

Policy D3.7 The City shall develop and maintain a capital drainage improvement program (DRIP) and work cooperatively with the Streets Division to complete small-scale drain improvements.

Policy D3.8 The City shall continually seek to evaluate the feasibility of alternative, less costly approaches to stormwater management. Such approaches may include exploring

Green Streets as a solution for drainage problems, creating LID demonstrations or pilot projects as part of any City funded projects, and developing incentives for LID demonstrations and pilot projects on private developments.

D4 Watershed Management

Policy D4.1 To protect the City’s water supply and quality, the City will actively seek to encourage implementation of watershed restoration projects both within City boundaries and on lands owned or managed by private and public entities.

- Strategy D4.1a The City shall partner with the “Stream Team,” whose mission is to identify opportunities for restoration maintenance and preservation of streams, washes, and open channels within City limits, and work with neighborhoods, community representatives and other jurisdictions to ensure successful implementation of watershed restoration projects.
- Strategy D4.1b The City will partner with a variety of private and public entities to support the implementation and maintenance of watershed restoration programs on parcels beyond the city limits that have a benefit to the City.

E. Infrastructure

E1 Water System Capacity Redundancy

Surface water supplies can be subject to interruptions and reduced or unavailable supply for a variety of reasons including drought, water quality, or infrastructure failure. Groundwater supplies can also be subject to interruptions for several reasons, including water quality and infrastructure failure. Therefore, having redundant (back-up) water supply sources and the necessary infrastructure to deliver that supply is good business practice. The purpose of requiring redundancy in our infrastructure is to ensure reliable water delivery to municipal customers in the event of a disruption of the City's primary water supply.

Policy E1.1 The City should develop system infrastructure as follows:

- Strategy E1.1a The water system must be designed to provide an uninterrupted supply of water during peak hourly demand with a minimum supply pressure of 40 pounds per square inch (psi) at the supply point for Maximum Probable Development (MPD) and for an economical life of not less than 50 years;
- Strategy E1.1b The public water supply system must be designed for the MPD of the entire subdivision and any undeveloped land beyond and in accordance with the land development code.

Policy E1.2 The City should maintain a diversified water resource portfolio in order to maintain an adequate redundant water supply by:

- Strategy E1.2a Maximizing the use of reclaimed water on areas that are appropriate within the City. This may include direct delivery of reclaimed water or recharge of our underground aquifers.
- Strategy E1.2b Constructing the necessary infrastructure for the transmission of treated water between various water supply sources.

Policy E1.3 The City should maintain sufficient water storage in order to maintain an adequate redundant water supply by considering the following:

- Strategy E1.3a The basic objectives of water storage facilities are to help meet peak flow requirements, to equalize system pressures, and to provide emergency water supply, such as fire flow requirements.
- Strategy E1.3b Water storage capacity shall be met by use of ground or subsurface mounted types of storage tank facilities installed at an elevation above the upper zone boundary elevation of that portion of the distribution system it serves. Elevated water storage can also be referred to as gravity storage tanks or

reservoirs. Elevated pedestal mounted water storage tanks shall not be used.

Policy E1.4 The City should maintain a water pipeline redundancy in order to maintain an adequate redundant water supply by considering the following:

- Strategy E1.4a Redundancy in the water distribution system is one way that the City can ensure reliability in delivering water to both residential and commercial customers.
- Strategy E1.4b Consider adding redundancy within the distribution system when replacing facilities that have reached the end of economic lives or when performing repairs on existing facilities that require wholesale customer outages and the costs of redundancy are less than the avoided risk costs.
- Strategy E1.4c Redundant distribution water mains may be required to parallel transmission mains in order to meet water demands during a transmission main outage.

E2 Water System Capacity Allocation

This policy relates to how the City of Flagstaff will plan and allocate the water system capacity available for new development. The primary purpose is to avoid exceeding the flow capacity of pipeline infrastructure and water production and treatment capacity. The benefit to the community is to ensure the public's trust in the City's water system and provide for long-term planning tool for community sustainability. This policy relates strictly to the tracking and commitment of the City's "paper water" peak day demands and is allocated on a "first in time, first in right" principle. Infrastructure requirements are addressed in Policy F1 – Utilities Master Planning.

Policy E2.1 It is the intent of the Utilities Division to provide adequate water system capacity to meet the City's future development needs. In order to timely provide these services it will be Division policy to plan for future infrastructure, water production and treatment capacity needs by adopting the following benchmarks:

- Strategy E2.1a At 80% of committed peak day demand – the Utilities Division will identify additional sources, treatment capacity needs, funding options, start design and necessary land acquisition for increased capacity needs.
- Strategy E2.1b At 85% of committed peak demand - the Utilities Division will begin construction to expand necessary facilities.
- Strategy E2.1c At 95% of committed peak demand – the Utilities Division will have completed construction and all necessary regulatory

agency permits will have been obtained and begin full operation.

Policy E.2.2 Communication: The Utilities Division will provide the primary point of contact for all staff-level communication with both the Arizona Department of Environmental Quality and the USEPA on water quality related issues.

Policy E.2.3 Water Capacity Allocation Program: The Utilities Division shall track and monitor existing and proposed water demands to prevent the pipeline and treatment plants from exceeding the permitted design flow capacity and prevent outages or curtailments from occurring. Flows shall be based on the applicant's water build-out flow basis not actual flows. Any differential between actual flows and the development's build-out water flow basis that occurs is not available to the applicant for re-allotment to another project or project expansion.

Strategy E2.3a The Utilities Division shall conduct hydraulic modeling studies, (known as a Water–Sewer Impact Analysis) necessary to estimate water infrastructure impacts considering existing and proposed demands per City Engineering standards. These studies shall be reviewed and updated on a regular basis as more technical information becomes available.

Strategy E2.3b The Utilities Division will use water demand data submitted during the Inter Departmental Staff Review Board process to estimate the Developer's water demand needs at build out.

Strategy E2.3c The Utilities Division will commit, track and set aside with different time periods the necessary water system capacity (peak day water flow) for all new Subdivision Final Plats and new projects developed in accordance with their existing zoning designation on the Zoning Map. Annual peak day water capacity requirements for Major Regional Plan Amendments shall also be tracked but not committed or set aside.

Strategy E2.3d The developer will be required to obtain a building or grading permit within the specified timeframes outlined below or risk losing the committed water system capacity:

- Subdivision Final Plat – there will no time limit on the reservation of the water system capacity committed for the development
- Zoning Map Amendment and Minor Amendments to the Regional Plan – for such new development, water resources will only be committed for no longer than the time frame associated with the zone change approval within which the applicant has to commence construction (typically 2 years)

- Major Amendments of the Regional Plan – there will be no reservation of committed water system capacity for these amendments

Strategy E2.3e Developments that require water system capacity infrastructure which are not included within with Utilities Division 10-year Capital Improvement Plan or those that create water system capacity requirements beyond what the existing water system can provide shall be treated on a case by case basis. After a Water-Sewer Impact Analysis is conducted, the Utilities Division may require the developer to drill a well or multiple wells necessary to meet the developments “average daily” capacity requirements. The Utilities Division should develop criteria for when a well or multiple wells will be required to be funded separately by the Developer. The Utilities Division will be responsible to provide the difference between the development’s “average day” and “peak day” water system capacity requirements.

Strategy E2.3f Developments that require water storage capacity infrastructure which are not included in the current 10 year Capital Improvement Plan or those that create water storage requirements beyond what the existing water storage facilities shall be treated on a case by case basis. In order to meet regulatory requirements for water storage, the Utilities Division may require the developer to fund and construct storage tank(s) equal to their “average day” water demands. The Utilities Division should develop criteria for when a storage tank(s) will be required to be funded separately by the Developer. The water storage tanks must be placed at an elevation that will provide adequate pressure for the Zone. It is the developer’s responsibility to obtain the appropriate land and right-of-way required to place the tank(s) and convey the water from the tank(s) to the site.

E3 Sewer System Capacity Allocation

This policy relates to how the City of Flagstaff will plan and allocate the sewer system capacity available for new development. The primary purpose is to avoid exceeding the flow capacity of pipeline infrastructure and wastewater plant treatment capacity. The benefit to the community is to ensure the public’s trust in the City’s sewer system, avoiding public health hazards and provide for long-term planning tool for community sustainability. This policy relates strictly to the tracking and commitment of the City’s “paper sewer” demands and does not address the future infrastructure requirements needed to support build out. Infrastructure requirements are addressed in Policy F.1 – Utilities Master Planning.

Policy E3.1 It is the intent of the Utilities Division to provide adequate sewer capacities to meet the City's future development needs. In order to timely provide these services it will be department policy to plan for future infrastructure and treatment capacity needs by adopting the following benchmarks:

Strategy E3.1a At 75% of actual flow capacity - the Utilities Division will identify additional treatment capacity and funding options.

Strategy E3.1b At 80% of actual flow capacity – the Utilities Division will begin design and necessary land acquisition for increased capacity needs.

Strategy E3.1c At 85% of actual flow capacity – the Utilities Division will begin construction of expanded facilities.

Strategy E3.1d At 95% of actual flow capacity – the Utilities Division will have completed construction and all necessary regulatory agency permits will have been obtained and begin full operation.

Policy E.3.2 Communication: The Utilities Division will provide the primary point of contact for all staff-level communication with both the ADEQ and the USEPA on sewer discharge regulatory related issues.

Policy E.3.3 Sewer Capacity Allocation Program: The Utilities shall track and monitor existing and proposed sewer flows to prevent the pipeline and treatment plants from exceeding the permitted design flow capacity and prevent sanitary sewer overflows from occurring. Sewer Capacity Assurance tracking shall be in accordance with Arizona Administrative Code (AAC) R18-9-E301(C)(2) and in compliance with the ADEQ guidelines on an ongoing basis.

Strategy E3.2a The Utilities Division shall conduct hydraulic modeling studies necessary to estimate sewer infrastructure impacts considering existing and proposed demands per City Engineering standards. These studies shall be reviewed and updated on a regular basis as more technical information becomes available.

Strategy E3.2b The Utilities Division will use sewer demand data submitted during the Interdivisional Development Review Board process to estimate the Developer's sewer demand needs at build-out.

Strategy E3.2c The Utilities Division will commit, track and set aside with different time periods the necessary sewer system capacity (average daily design flow at build-out) for all new Subdivision Final Plats and existing zoning grading plans that are approved by the City Council. Annual average daily sewer

capacity requirements for Major amendments shall also be tracked but not committed or set aside. The projected average daily sewer flow shall be calculated using the City of Flagstaff Engineering Standards and/or the sewer unit design flow tables contained within the Arizona Administrative Code (AAC) R18-9-E301 Table 1.

Strategy E3.2d The developer will be required to obtain a building or grading permit within the specified timeframes outlined below in accordance with the conditions of the Zoning Map Amendment approval or risk losing the committed sewer system capacity:

- Subdivision Final Plat – there will no time limit on the reservation of the water system capacity committed for the development
- Zoning Map Amendment and Minor Amendments to the Regional Plan – the reservation of a committed water supply for the approved conditions of the amendments will be no longer than a 2-year timeframe in accordance with Division 10-20.50 of the Zoning Code
- Major/Minor Amendments of the Regional Plan – there will be no reservation of committed water system capacity for these amendments

Strategy E3.2e Developments that require sewer system capacity infrastructure which are not included within with Utilities Division 10-year Capital Improvement Plan or those that create sewer system capacity requirements beyond what the existing sewer system can provide will be treated on a case by case basis. After a Water-Sewer Impact Analysis is conducted, the Utilities Division may require the developer to upsize sewer infrastructure off-site to meet the developments “average daily” capacity requirements. The Utilities Division should develop criteria for when upsizing will be required to be funded separately by the Developer.

Strategy E3.2f Each new development, Zoning Map Amendment or a Major/Minor amendment to the Regional Plan will submit to the City an estimate of the maximum number of units (both residential and non-residential) and the average daily sewer design flow their development will require at built-out.

Strategy B3.2g The Community Development, Economic Vitality and Utilities Divisions will coordinate regarding the City’s available uncommitted sewer capacity that can be allocated to priority developments shown in the voter approved Regional Plan. This will occur before approving any new extension, variance, or other changes to any final site or construction plans that

results in the allocation of sewer capacity beyond that what was originally approved.

Policy E.3.3 Compliance: The City shall maintain its Designation as an Arizona Pollutant Discharge Elimination System Site and the permitted discharge limits as determined by the ADEQ. Additionally, City of Flagstaff will submit these committed demands to ADEQ for any new subdivision, site, system extension or collection system expansion as currently required by law.

E4 Service Outside City Limits

The City of Flagstaff provides water and sewer service to some areas outside its City corporate limits. These areas include unincorporated areas of Coconino County such as portions of Doney Park, Camp Townsend, Pine Del, Ft. Tuthill and county islands within Flagstaff corporate limits. The purpose of this policy is to describe the conditions, requirements, and procedures for obtaining City of Flagstaff water and sewer service connections to areas located outside the corporate limits of the City of Flagstaff.

Policy E 4.1 The City will consider out of city requests for service from customers in Unincorporated County Areas that are located within or contiguous to the City of Flagstaff corporate limits using the following criteria:

- Strategy E4.1a The Unincorporated County Areas shall agree to be annexed into the City of Flagstaff.
- Strategy E4.1b The property requesting annexation must be within or contiguous to the City of Flagstaff corporate boundary.
- Strategy E4.1c Water or Sewer main extensions will be permitted only after annexation of the property is completed and approved by the Flagstaff City Council.
- Strategy E4.1d Requests for service shall be evaluated by a cross-divisional internal team. The City will consider the economic value, potential costs to existing ratepayers, operation and maintenance costs, impacts to water resources, adequateness of infrastructure, and regional land use plans prior to granting service requests.
- Strategy E4.1e Requests for service within other jurisdictions that are not described above will require an Intergovernmental Agreement (IGA) between the City and the other jurisdiction.

Policy E 4.2 The City's general policy for providing retail water service to outside City customers will depend on the property's location and the City's obligation for providing water service and consider the following:

- Strategy E4.2a The City will allow a water service connection if a property fronts an operating water main that is less than 16-inches in diameter, (mains 16-inches and larger are transmission mains that are not intended for tapping), there is sufficient capacity in the system to meet peak hour fire flows, and all City Code and Engineering Design Standards associated with obtaining water service are met.
- Strategy E4.2b All service connections and main extensions shall comply with all applicable standards and code requirements, including, but not limited to, Flagstaff City Code, City of Flagstaff Engineering Design Standards, International Fire Code, and Maricopa Association of Governments (MAG) Standards.
- Strategy E4.2c Service connections and main extensions shall be located in public right-of-way meeting the standards of the City of Flagstaff. An easement, license or non-revocable permit is required for main extensions in the public right-of-way. If the service connection or main extension cannot be installed in right-of-way, a dedicated easement meeting City of Flagstaff design requirements will need to be approved by the City of Flagstaff Utilities Department.
- Strategy E4.2d The City will provide service through a water service connection if a property fronts an operating City water distribution main, the main is within the correct pressure zone, there is sufficient capacity in the water system, and all City Code and COF Engineering Design Standards associated with obtaining water services are met.
- Strategy E4.2e Applicants shall be required to pay all applicable outside City of Flagstaff development fees, capacity fees, connection fees, repayment agreement fees, and permit fees.
- Strategy E4.2f The property to be served shall meet the same development water standards required of properties within the City of Flagstaff limits that seek water service.

Strategy E4.2g The City has the authority to deny or discontinue service if the service connection could threaten or endanger the safe, efficient and adequate service.

Strategy E4.2h The current outside City water service areas are shown and updated in the Water System Master Plan.

Policy E 4.3 The City's general policy for providing retail sewer service to outside City customers will depend on the property's location and the City's obligation for providing sewer service and considering the following:

Strategy E4.3a The City will allow a sewer service connection if a property fronts an operating sewer main that is less than 18-inches in diameter, (mains 18-inches and larger are interceptor sewers that are not intended for tapping), there is sufficient capacity in the system to meet peak hour wastewater flows, and all City Code and Engineering Design Standards associated with obtaining sewer service are met.

Strategy E4.3b Under no circumstances will services be allowed into existing manholes.

Strategy E4.3c Sewer service within other jurisdictions that are not described above will require an Intergovernmental Agreement (IGA) between the City and the other jurisdiction.

Strategy E4.3d All service connections and main extensions shall comply with all applicable standards and code requirements, including, but not limited to, Flagstaff City Code, City of Flagstaff Engineering Design Standards, International Building Code, and Maricopa Association of Governments (MAG) Standards.

Strategy E4.3e Service connections and main extensions shall be located in public right-of-way meeting the standards of the City of Flagstaff. An easement, license or non-revocable permit is required for main extensions in the public right-of-way. If the service connection or main extension cannot be installed in right-of-way, a dedicated easement meeting City of Flagstaff design requirements will need to be approved by the City of Flagstaff Utilities Department.

Strategy E4.3f Applicants shall be required to pay all applicable outside City of Flagstaff development fees, capacity fees, connection fees, repayment agreement fees, and permit fees.

Strategy E4.3g The property to be served shall meet the same development sewer standards required of properties within the City of Flagstaff limits that seek sewer service.

Strategy E4.3h The City has the authority to deny or discontinue service if the service connection could threaten or endanger the safe, efficient and adequate service.

Strategy E4.3i The current outside City sewer service areas are shown and updated in the Wastewater System Master Plan.

Policy E 4.4 The Utilities Division will review requests for water, sewer and reclaimed main extensions using the following criteria:

Strategy E4.4a Determine if capacity is available and stipulate any necessary requirements for the extensions. Any new service or change in use that will result in increased demands for water must consider that the change may require additional improvements to the City's water, sewer and reclaimed water systems at the owner's/developer's expense.

Strategy E4.4b Sewer main extensions will be permitted only after annexation is completed and approved by the Flagstaff City Council. The property requesting annexation must be contiguous to the City of Flagstaff corporate boundary.

Strategy E4.4c Deviation from this policy will require City Council approval.

Strategy E4.4d Utility line extensions may require a Water and Sewer Impact Analysis (WSIA). Requirements for water and sewer extensions shall be outlined within the WSIA analysis. Payment for the WSIA shall be by the developer or applicant.

E5 Service Area Expansion (reserved for the future)

E6 Service Area Expansion- annexation (reserved for the future)

F. Master Planning

F1 Utilities Master Planning

The City has developed and maintained water, wastewater and reclaimed water treatment and distribution/collection systems in order to provide a high level of water services to its citizens and customers. These systems should conform and support the orderly growth identified in the Regional Plan (i.e., General Plan), employ sound water management principles, meet or exceed all federal and state water quality requirements, provide for adequate fire suppression and stormwater drainage for the benefit of public health and safety.

The City should first undertake a water resource master planning effort. The purpose of this planning should be to provide a guide to quantify the long-term needs for water resources, and identify future supply options and/or demand management opportunities including their respective costs. Additionally, this plan should support the City in maintaining its 100-year Designation of Adequate Water Supply as confirmed by the Arizona Department of Water Resources and within Policy B2 – Water Adequacy.

The City should then undertake infrastructure related master planning efforts in successive steps that utilize the information from each preceding planning effort to build upon one another. The sequence of planning should be completing the water infrastructure system, followed by the wastewater infrastructure system and then the reclaimed water infrastructure system. The purpose of conducting these planning efforts in sequence is to utilize common data between them to ensure continuity and integration of each of the systems. The last master planning effort in the sequence that spans across all three (3) of the infrastructure plans is to evaluate the Utilities implementation of technology, specifically its process control and monitoring system known as a Supervisory Control and Data Acquisition (SCADA) system.

Policy F 1.1 The City will prepare or update a Water Resource Master Plan every five (5) years that considers the following:

Strategy F1.1a Existing legal water rights to the supplies it currently uses or possesses.

Strategy F1.1b Projected population and land use information contained within the voter approved Regional Plan in order to estimate water demands for a minimum of 30 years into the future (i.e., short-term planning) and at build-out (i.e., long-term planning). The maximum target population density of the Regional Plan should be used for water demand estimates unless determined otherwise.

- Strategy F1.1c The technique of Scenario Planning or its equivalent should be employed when estimating future water supply needs of the City. The planning should anticipate a range of future plausible outcomes (e.g., wet v. dry climate; fast v. slow growth rates) and describe recommendations and choices the City can make in the short and long term. The planning should avoid predicting a single plausible future and then recommend water management options for only that sole outcome.
- Strategy F1.1d Identification of the types and volumes of hydrologic water supplies (i.e., surface water v. groundwater) in order to assist in determining the necessary infrastructure (e.g., treatment plants or wells) during the Infrastructure master planning effort.
- Strategy F1.1e Develop average annual water use factors for each type of land use (e.g., single family, multi-family, hotel, commercial, industrial, etc). Water use factors should be quantified in terms of Gallons per Capita per Day (GPCD), Gallons per House per Day (GPHD) or Gallons per Acre per Day (GPAD), as appropriate.
- Strategy F1.1f Identify future water supply options and recommendations while considering the City's Adequate Water Supply Designation.
- Strategy F1.1g This section should include options on how the City can better manage or optimize the supplies it currently relies upon (e.g., water conservation, rainwater harvesting, etc.) in addition to identifying new future water resources, as appropriate. All options should include their estimated cost on an acre-foot per year basis for comparison purposes.

Policy F 1.2 The City will prepare a Water System Master Plan every five (5) years beginning the following year after the completion of the Water Resources Master Plan that considers the following:

- Strategy F1.2a Use all of the information and assumptions contained within the Water Resources Master Plan
- Strategy F1.2b Identifying the necessary infrastructure (e.g., treatment plants and/or wells) to treat and deliver the water supplies identified within the Water Resources Master Plan in order to meet projected water demands. The regulatory requirements of the USEPA, ADEQ and any other applicable water quality rules or regulations.

Strategy F1.2c Development of average and peak water demand factors.

Strategy F1.2d Development and calibration of a hydraulic model of the water distribution system in order to assist in evaluating the optimum operations, water quality and infrastructure sizing. Update this model annually to account for changes in the Regional plan and/or changes in development patterns.

Strategy F1.2e Development of a Capital Improvement Program, including capital, operation and maintenance costs, in order to develop and maintain a robust water distribution system to provide a high level of water service to Flagstaff customers.

Policy F 1.3 The City will prepare a Wastewater System Master Plan every five (5) years that considers the following:

Strategy F1.3a Use all of the appropriate information and assumptions contained within the Water Resources and Water System Master Plans

Strategy F1.3b Identifying the regulatory requirements of the USEPA, ADEQ and any other applicable water quality rules or regulations.

Strategy F1.3c Average and Peak wastewater flow.

Strategy F1.3d Development and calibration of a hydraulic model of the wastewater collection system in order to assist in evaluating the adequacy of the existing system to accommodate varying wastewater flow conditions, and identify wastewater system modifications and expansions necessary to accommodate future flows. Update this model annually to account for changes in the Regional Plan and/or changes in development patterns.

Strategy F1.3e Review current solids handling practices at existing wastewater treatment plants and determine future solids handling requirements based on estimated wastewater flow projections.

Strategy F1.3f Development of Capital Improvement Program, including capital, operation and maintenance costs, in order to develop and maintain a robust wastewater collection system to provide a high level of wastewater service to Flagstaff customers.

Policy F 1.4 The City will prepare a Strategic Technology Master Plan specifically looking at the Utilities Supervisory Control and Data Acquisition System (SCADA) every (3) years due to the rapid change in technology and that should considers the following:

Strategy F1.4a Evaluate the use of technology within the utility industry as it relates to supporting the business goals and objectives of the department.

Strategy F1.4b Technology should be aligned with the City enterprise systems.

Strategy F1.4c Evaluate the use of technology within the following application areas:

- i. Computerized Maintenance Management Systems
 - ii. Electronic Operation & Maintenance Manuals-future
 - iii. Geographic Information System-Utility based applications
 - iv. Mobile Wireless Computing
 - v. Inter and intra-facility Networking (WAN and LAN)
 - vi. Modeling
 - vii. Application integration
 - viii. Provide Process Control & Monitoring (SCADA)
 - ix. Information Technology Security
 - x. Water Quality and Laboratory Information Management
- ii. Web and e-Business

Strategy F1.4d Develop a list of recommended projects to be implemented, including their capital cost, annual Operation and Maintenance costs, man-hours to implement and levels of support required.

G. Regional Cooperation and Leadership

The City is often engaged in numerous regional/state-wide organizations to develop policy or position statements on water issues that impact Flagstaff. These have included being active with the Northern Arizona Municipal Water Users Association, Arizona Department of Water Resources (ADWR), Federal Emergency Management Agency (FEMA), USEPA, ADEQ, Northern Arizona University (NAU), U.S. Bureau of Reclamation (BOR), U.S. Geological Survey (USGS), Coconino Plateau Water Advisory Committee (CPWAC), Salt River Project, Central Arizona Project, and various state-led forums. Additionally, the City needs to work collaboratively with the Navajo Nation and Hopi Tribe regarding regional water issues. Since water management decisions made today have long term implications, it is prudent that the City remains involved in influencing regional and State water policy and should consider the following:

G1 Collaboration with Tribal Governments

Policy G1.1 The City should foster and maintain professional relationships with the Tribal governments of the Navajo Nation and Hopi Tribe regarding regional water issues.

Strategy G1.1a the Mayor or their designee should establish and maintain a professional relationship with the elected officials of each tribe in order to stay informed, work collaboratively and influence policy decisions that may affect the City of Flagstaff's water supplies.

Strategy G1.1b the City Manager or their designee should establish and maintain a professional relationship with the government officials of each tribe in order to stay informed, work collaboratively and influence policy decisions that may affect the City of Flagstaff's water supplies.

Strategy G1.1c the Utilities Division staff should establish and maintain a professional relationship with the water resource staff of each tribe in order to stay informed, work collaboratively and influence policy decisions that may affect the City of Flagstaff's water supplies.

G2 Collaboration with Water Agencies, and Associated Water Groups

Policy G2.1 The City should foster and maintain professional relationships with water management, water quality, flood control and water delivery agencies.

Strategy G2.1a the Mayor or their designee should establish and maintain a professional relationship with the appropriate counter-parts within these organizations in order to stay informed, work collaboratively and influence policy decisions that may affect the City of Flagstaff's water supplies.

Strategy G2.1b the City Manager or their designee should establish and maintain a professional relationship with the appropriate counter-parts within these organizations in order to stay informed, work collaboratively and influence policy decisions that may affect the City of Flagstaff's water supplies.

Strategy G2.1c the Utilities Division staff should establish and maintain a professional relationship with the appropriate counter-parts within these organizations in order to stay informed, work collaboratively and influence policy decisions that may affect the City of Flagstaff's water supplies.

G3 Water Rights Acquisition

Policy G3.1 The City should demonstrate regional leadership in water management and water policy by participating in:

- a. Competition for limited renewable water supplies.
- b. Protection of existing water rights and water supplies.
- c. Protection of environmentally sensitive riparian areas.
- d. Collaboration/partnerships with adjacent water providers.
- e. Water source and infrastructure financing.
- f. ADWR Water Adequacy and Management Plans.
- g. Intergovernmental and interagency relationships.
- h. Collaborate National Pollutant Discharge Elimination System (NPDES) compliance efforts with other jurisdictions.
- i. Maintain relationships with FEMA and ADWR respecting flood control and National Flood Insurance Program (NFIP) issues.

H. Water Security

The Mission of the City of Flagstaff Utilities Division is to provide safe water, wastewater, reclaimed water and stormwater services to the City of Flagstaff customers. Drinking water safety and maintaining security of the City's wastewater and stormwater collection systems is a primary concern of the Utilities Division for utility system employees and the community.

H1 Water Supply Security

Policy H1.1 The Utilities Division shall follow the recommendations of the Public Health Security and Bioterrorism Preparedness and Response Act enacted by the Federal Government and the Water System Vulnerability Assessment prepared in November 2003 and their updates specifically prepared to follow this guidance act.

Strategy H1.1a Security - Implement security improvements as funds become available as recommended in the vulnerability assessment reports.

Strategy H1.1b Assessment – conduct updates to vulnerability assessments on a periodic basis and maintain confidentiality of any vulnerabilities identified.

H2 Infrastructure Security

Policy H2.1 The Utilities Division shall limit access to the public from sensitive information and critical areas of the utility infrastructure in order to minimize the threat of attack or compromise of the Utilities Division's services. The Utilities Division develops an annual Report to the Water Commission that contains a variety of potential sensitive infrastructure information.

Strategy H2.1a Restrict Tours - Restrict public tours of the treatment facilities and/or limit access to critical portions of the plants.

Strategy H2.1b Limit Information to Public - Balance the public's right to know versus Utilities need for public safety. Develop guidelines on restrictions to the public including access to the annual Report to the Water Commission.

Strategy H2.1c Report Suspicious Behavior - Utilities Division staff need to be aware of and report suspicious behavior near critical facilities.

Strategy H2.1d

SCADA Information Security - The Utilities Division treatment plant facilities utilize a process control and monitoring system known as a Supervisory Control and Data Acquisition (SCADA) system in order to track information electronically and safely operate and control each treatment plant. These SCADA systems need to be physically isolated from all other computer networks and their network access restricted to minimize their potential to be infected by virus or malicious intent.

H3 Discharge Control for Sanitary and Stormwater Systems

Policy H3.1 Utilities shall maintain programs to control the type of materials and substances that are allowed to be discharged or placed into the sanitary and stormwater systems.

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