GRAND JUNCTION CITY COUNCIL WORKSHOP AGENDA

MONDAY, JUNE 18, 2007, 7:00 PM CITY HALL AUDITORIUM, 250 N. 5TH STREET

MAYOR'S INTRODUCTION AND WELCOME

- 7:00 COUNCILMEMBER REPORTS
- 7:15 CITY MANAGER'S REPORT
- 7:20 REVIEW OF FUTURE WORKSHOP AGENDAS <u>Attach W-1</u>
- 7:25 **REVIEW WEDNESDAY COUNCIL AGENDA**
- 7:30 WATERSHED COMMUNITY PLAN PRESENTATION: Staff will present the final draft of the Plan. <u>Attach W-2</u>
- 7:45 WATERSHED ORDINANCE IMPLEMENTATION REGULATIONS: Discussion of regulations implementing the Watershed Ordinance which have been prepared by Utility Department staff, in conjunction with various affected interest groups.
- 8:30 **WATER CONSERVATION EFFORTS BY THE PARKS DEPARTMENT:** The Parks Department will present water conservation efforts through central control irrigation. Utilities staff will then present information on water conservation efforts to be encouraged City-wide. <u>Attach W-4</u>

ADJOURN

Attach W-1 Future Workshop Agendas FUTURE CITY COUNCIL WORKSHOP AGENDAS (December 19, 2011)

JULY 2007

→JULY 2 WORKSHOPS AND JULY 4 REGULAR MEETING CANCELED DUE TO HOLIDAY AND 125TH CELEBRATION!

→ JULY 16, MONDAY <u>11:30 AM</u>: <u>Administration Conference Room</u>

11:30 LISTENING TO BUSINESS REPORT, 2007 - Georgann Jouflas

→JULY 16, MONDAY <u>7:00 PM:</u> City Hall Auditorium

- 7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
- 7:25 CITY MANAGER'S REPORT
- 7:30 PLANNING QUARTERLY UPDATE
- 7:45 NORTH AVENUE CORRIDOR PLAN: Discussion of the draft plan and specifically implementation strategies
- 8:30 MESA LAND TRUST Buffer Program Update

→ JULY 30, MONDAY <u>11:30 AM</u>: <u>Two Rivers Convention Center</u>

11:30 MEET WITH CHAMBER OF COMMERCE: Luncheon with their board

→JULY 30, MONDAY <u>7:00 PM: City Hall Auditorium</u>

- 7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
- 7:25 CITY MANAGER'S REPORT
- 7:30 ENERGY CONSERVATION Alpine Bank & City Energy Conservation Committee
- 8:20 URBAN TRAILS PILOT PROJECT

AUGUST 2007

→AUGUST 2, THURSDAY, <u>7:00 PM, City Hall Auditorium</u> 7:00 ANNUAL PERSIGO MEETING

→AUGUST 13, MONDAY <u>11:30 AM:</u> <u>GJEP BOARD ROOM, 122 N. 6TH STREET</u> 11:30 GJEP LUNCHEON

→AUGUST 13, MONDAY <u>7:00 PM:</u> City Hall Auditorium

- 7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
- 7:25 CITY MANAGER'S REPORT
- 7:30 I-70 CORRIDOR GROUP/ROCKY MOUNTAIN RAIL AUTHORITY UPDATE: Dr. Flo Raitano

8:15 HOUSING MARKET ANALYSIS DONE BY CHFA: Jim Coil (see report at <u>http://www.colohfa.org/documents/GrandJunctionRpt-0107.pdf</u>) & Jody Kole

SEPTEMBER 2007

SEPTEMBER 3, 2007 - WORKSHOPS CANCELED - LABOR DAY

→SEPTEMBER 17, MONDAY <u>11:30 AM:</u> <u>ADMINISTRATION CONFERENCE</u> <u>ROOM</u>

11:30 OPEN

SEPTEMBER 17, MONDAY 7:00 PM: City Hall Auditorium

- 7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
- 7:25 CITY MANAGER'S REPORT
- 7:30 211 TELEPHONE SERVICE desire to market and keep viable, strategic plan outlining services

OCTOBER 2007

→OCTOBER 1, MONDAY <u>11:30 AM</u>: <u>ADMINISTRATION CONFERENCE ROOM</u> 11:30 OPEN

→OCTOBER 1, MONDAY <u>7:00 PM: City Hall Auditorium</u>

- 7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
- 7:25 CITY MANAGER'S REPORT
- 7:30 OPEN

→OCTOBER 15, MONDAY <u>11:30 AM:</u> <u>ADMINISTRATION CONFERENCE ROOM</u> 11:30 OPEN

→OCTOBER 15, MONDAY 7:00 PM: City Hall Auditorium

- 7:00 COUNCIL REPORTS, REVIEW WEDNESDAY AGENDA AND FUTURE WORKSHOP AGENDAS
- 7:25 CITY MANAGER'S REPORT
- 7:30 OPEN

☆ <u>BIN LIST</u> 领

- 1. AMENDMENT TO SMOKING ORDINANCE Request from VFW
- 2. MEET WITH ABC: Luncheon TBD
- 3. REVIEW PROPERTY INVENTORY
- 4.. REQUEST FROM WESTERN COLORADO CONGRESS: Information to be provided

to Council regarding the impact on water from commercial oil shale operations.

5. ELECTRONIC RECORDS STORAGE INITIATIVE (Sept ?)

Attach W-2 Watershed Community Plan

		CITY	Y CO	DUNCIL		ND	Α		
Subject	W	Watershed Plan-Town of Palisade/City of Grand Junction							and Junction
Meeting Date	Ju	June 18, 2007							
Date Prepared	Ju	ne 14, 2	2007	7			File #		
Author	La	urie Ka	dric	h	Depu	ıty	City Manage	er	
Presenter Name	La	urie Ka	dric	h	Depu	ity	y City Manager		
Report results back to Council		Yes	Х	No	Whe	n			
Citizen Presentation		Yes	X	No	Nam	е			
X Workshop		Formal Agenda					Consent		Individual Consideration

CITY OF GRAND JUNCTION

Summary: On April 16, 2007 the draft community plan document was presented to Elected Officials for review. Since then we have accepted public comments regarding the draft, sent copies to groups and individuals for review and met with focus groups to receive comments. Attached is a summary of those comments.

Budget: N/A.

Action Requested/Recommendation:

To approve/ratify the draft watershed document in its current form and forward public comments to the stakeholder group for possible inclusion in the final version.

Attachments: Public Comments and Focus Group Discussions on the draft plan.

Background Information:

Since August of 2006, staff members have been working to resolve community issues relating to potential energy development in the watersheds of the Town of Palisade and the City of Grand Junction. We have worked in cooperation with federal agencies, Genesis Gas and Oil LLC., local governments and private landowners to develop a series of best management practices that will minimize the risks associated with potential energy development in the watershed. We have incorporated those ideas into local regulation for the City.

Public Comments and Focus Group Discussions on Genesis Watershed Plan.

The following groups were contacted to meet to discuss the Genesis Watershed Plan and receive comments. Western Slope Chapter of Colorado Oil & Gas Association (WSCOGA), Western Colorado Congress (WCC), Colorado Environmental Coalition (CEC), Xcel Energy, Kinder Morgan (TransColorado Pipeline), Colorado Department of Public Health and Environment (CDPH&E) and the Chamber of Commerce. All were sent copies of the Draft Genesis Plan and the Draft City of Grand Junction Watershed regulations. Only WCC, CEC and Chamber of Commerce scheduled meetings. None wanted to give comments about Genesis Plan but rather wanted to discuss City regulations. WCC gave some brief comments during meeting and said they were going to submit comments to Watershed Plan website. CDPH&E submitted comments.

The following are a recap of major comment points received from focus groups and those submitted to website:

Good Aspects of Plan:

- There are many good things in the plan that, if followed, will reduce the risk of contaminating the Palisade and Grand Junction municipal drinking water supplies:
- Voluntary stipulation of no surface occupancy in the vicinity of spring boxes.
- Commitment to use closed fluid systems and not put wastewater pits in the water supply watersheds.
- Baseline hydrologic studies and monitoring.
- Disclosure and tracing of fluids used.
- Use of "green" hydraulic fracturing fluids.
- The stakeholder group seems to provide enough methods of communication to both inform and allow for public comment and participation.
- The effort to address potential complaints seems good.
- The plan should conform to the "no drilling in the environmentally sensitive areas policy" (i.e.: around the springs and seeps that provide drinking water to GJ and Palisades).
- The coordination of minimizing impacts by directional drilling and dense drilling locations whenever possible.
- The commitment to educate and inform employees and subcontractors of Genesis Gas and Oil.

Possible Revisions to Plan:

- Would prefer to have NO Drilling within the watersheds.
- Adding a commitment to establish an advisory board, made up of stakeholders, to create an ongoing, public forum for discussion of Plans of Development (PODs) and the resolution of conflicts.
- Adding a commitment to ensure that, prior to drilling in the watershed, Genesis or its successor will file a performance financial warranty with the relevant municipality that will be sufficient to assure high water quality within the watershed if the clean-up work had to be undertaken by that municipality in the event of forfeiture.
- Adding a statement signed by the government entities that are parties to the plan that commits them to using the plan as a template for permitting processes and regulations affecting drilling in the municipal watersheds. This would significantly improve the public's confidence that this plan is a meaningful document rather than a public relations exercise.

- Increasing the role of Mesa County in oversight and permitting of drilling operations, particularly in areas that are outside of the municipal watersheds but inside watersheds that provide drinking water to non-municipal users:
- The language is very open-ended and vague and seems to be too flexible. It seems as if the water resources will be protected only where reasonable. The water resources should be the primary concern.
- The BLM and USFS land use protection and "Best Management Practices (BMP)" should be attached as an appendix.
- Who is responsible for the BMP implementation? Who will be monitoring the BMP's? These parties should be clearly identified. It seems like the plan may be laid out well in some areas but there is no direct responsibility for BMP implementation. It needs some accountability.
- There should be a commitment from the stakeholders and Genesis Gas and Oil to meet and identify changes in procedures/operations prior to active drilling.
- Clearly list the stakeholder group and contact information in the plan. How diverse is the group? Who is represented? How can they be contacted?
- Identify how long the water quality monitoring will continue after the development period.
- The Emergency Response Plan could use some more clarification. Identify the responsible parties, contact information etc. Who is on the response team in the event of a spill or release? Is there an avenue for the public to report releases and spills identified?
- Regarding the subcontractor education.... The subcontractors should not only review the plan but should also be knowledgeable about the Emergency Response Plan and the hydro geologic analysis that is going to be completed.
- Identify how the produced water will be disposed of. How will it be stored and transported. Will there be secondary containment?
- Will there be secondary containment around **all** waste and production storage tanks?

Other Comments:

- Add some regulatory teeth to the plan with Grand Junction's and Palisades's municipal ordinance stipulations.
- What will be the frequency of inspections?
- Will the collaborative POD's be just for the leases in the watersheds?
- Is the Plan subject to all the leases Genesis purchased?
- Plan doesn't address drilling equipment.
- Should unitization occur will the plan be applicable?

Attach W-3 Watershed Ordinance Implementation Regulations

CITY OF GRAND JUNCTION

		CIT	YC	OUNCII		A		
Subject	Ade	Adoption of Watershed Regulations						
Meeting Date	Jur	une 18, 2007						
Date Prepared	Jur	une 12, 2007 File #						
Author	Gre	Greg Trainor, Utility and Street Systems Director						
Presenter Name	Ter	rry Fra	nklin		Water S	Services Man	ager	
Report results back to Council	Х	No		Yes	When			
Citizen Presentation		Yes	X	No	Name			
X Workshop		Formal Agenda Consent Individual Considera					Individual Consideration	

Summary: Ordinance No. 3961, establishing requirements for permits for certain activities in the Grand Junction watersheds, was adopted September 6, 2006. Regulations implementing the ordinance have been prepared by Utility Department staff, in conjunction with various affected interest groups.

Budget: Activities in the watersheds will be monitored and the City will expend staff time and Water Enterprise Fund resources in this efforts.

Action Requested/Recommendation: Review and adoption of the implementing regulations, by resolution.

Attachments: See attached Watershed Protection Regulations.

Background Information: The Watershed Protection Regulations were drafted by Western Water and Land, the City Utility Department's consulting hydrologists on watershed protection issues.

The draft (s) were then reviewed and discussed with various affected interests including the U.S. Bureau of Land Management, U.S. Forest Service, Western Colorado Congress, the Grand Junction Chamber of Commerce, Xcel Energy, Transcolorado Natural Gas Pipeline, Aspen Operating LLC, Mesa County, and several affected private landowners in the watershed boundaries.

The regulations outline activities that will require a watershed permit. These are: Timber harvesting, surface and subsurface mining, drilling, excavating, storing and use of toxic and hazardous materials, removing vegetation, confined animal feeding operations, and others. Activities not requiring a watershed permit are local landowners conducting normal, domestic, single-family development. In addition, activities conducted by the BLM and Forest Service for their own purposes are exempt from a permit. Examples are: fire fuel reductions, trail construction and maintenance, facility maintenance, etc. to the extent they meet all NEPA requirements and follow all best management practices for protection of water resources, such as the stormwater regulations.

Applications for watershed permits include provisions for protection of water quality, soils, drainage, vegetation, etc.

The Watershed Protection Regulations adopt the "Watershed Plan for the Town of Palisade and the City of Grand Junction" and make the provisions of the Watershed Plan binding on the applicant.

The Watershed Protection Regulations also include all City owned property contiguous to the Watershed Boundary

Finally, cash guarantees or certificates of deposit to insure complete reclamation of disturbed areas are required. Pollution Liability Insurance is also required.

Approval of a permit establishes a vested right in the applicant for the permitted use, provided he complies with applicable provisions of the ordinance.

WATERSHED PROTECTION REGULATIONS

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	Sec. XX-1	Short title
	Sec. XX-2	Intent
	Sec. XX-3	Authority
	Sec. XX-4	Severability
	Sec. XX-5	Prevailing provisions
	Sec. XX-6	Interpretation
	Sec. XX-7	Legal Action
	Sec. XX-8	Entry and inspection
	Sec. XX-9	Violations; penalties
	Sec. XX-10	Enforcement
Article II	Definitions	
ALLEL	Sec. XX-21	Rules of construction
	Sec. XX-21 Sec. XX-22	General terms defined
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		other definitions
Article III	Watershed	
	Sec. XX-31	Establishment of the Watershed
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Article IV	Activity within the	Watershed
	Sec. XX-41	Applicability
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	Sec. XX-43	Activities requiring a City watershed permit
	Sec. XX-44	Activities not requiring a City watershed permit
	Sec. XX-45	Modes of Travel
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Article V	Administration and	d Enforcement
	Sec. XX-51	Submittal requirements
	Sec. XX-52	Review and permitting procedures
	Sec. XX-53	Permit expiration and renewal
	Sec. XX-54	Permit closure and release of financial warranty
	Sec. XX-55	Permit temporary cessation status
	Sec. XX-61	Standards
	Sec. XX-62	Issuance of permit; permit conditions
	Sec. XX-63	Inspectors/Inspections
	Sec. XX-64	Enforcement
	Sec. XX-65	Permit Transferability
	Sec. XX-66	Financial Warranty
	Sec. XX-67	Fees and review costs
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Article VI	Appeal	
=	Sec. XX-71	Appeal of administrative decision
	Sec. XX-72	Appeal of City Council's decision

ARTICLE I

General Provisions

Sec. XX-1. Short title.

These regulations may be cited as the "Watershed Protection Regulations" or generally as "Watershed Regulations." (Ord. 3961 §1, 2006)

Sec. XX-2. Intent.

The City Council finds that the maintenance and protection of an adequate water supply of the highest quality and quantity is essential to the public health, safety and welfare of the citizens of the City, and that the City's water supply and waterworks shall be protected from pollution, impairment, injury or damage. (Ord. 3961 §1, 2006)

These regulations shall be periodically reviewed and updated to reflect new technologies and/or applicable state and federal regulations.

Sec. XX-3. Authority.

Pursuant to the Constitution, the Charter and applicable law, the City may enact ordinances and regulations for the purpose of maintaining and protecting the City's waterworks from injury and to protect the water from pollution in lands and territory occupied by such waterworks and over the streams or sources, including groundwater, from which the water is taken for five (5) miles above the point from which it is taken, pursuant to Section 31-15-707(l) (b), C.R.S. (Ord. 3961 §1, 2006)

All powers and protections stated herein are applicable to all property owned by the City contiguous to the Watershed Boundary.

Sec. XX-4. Severability.

If any section, subsection, paragraph, clause, phrase or provision of these Regulations shall be held or adjudged to be invalid by a court of competent jurisdiction, then the validity of the balance of the Watershed Regulations shall not be affected in whole or in part. (Ord. 3961 §1, 2006)

Sec. XX-5. Prevailing provisions.

The City's authority over proposed activities within the Watershed, not on land owned in fee simple by the City, shall be exercised concurrently with Mesa County, the United States Department of Agriculture, the United States Forest Service (USFS), the United States Department of the Interior and the United States Bureau of Land Management (BLM), consistent with and pursuant to the City's jurisdiction as authorized by law and implemented by these regulations. The City's authority shall be construed as broadly as is consistent with established principles of law. For all proposed activities on land owned in fee simple by the City, or if any federal, state or local entity defers or declines to exercise its applicable authority, if any, for any proposed activity within the Watershed, the City's review authority shall occur prior to the commencement of any proposed activity subject to these regulations. (Ord. 3961 §1, 2006)

Sec. XX-6. Interpretation.

In their application and interpretation the provisions of these Regulations shall be held to be minimum requirements. These Regulations do not repeal, abrogate, annul or in any way impair or interfere with existing provisions of private or intergovernmental agreements. Where these Regulations impose a

greater restriction than that imposed by prior or existing provisions of law, contract or deed, the provisions of these Regulations shall control. (Ord. 3961 §1, 2006)

Sec. XX-7. Legal Action.

(a) The City Attorney is authorized to file suit against and/or to prosecute in the Municipal Court any person alleged to violate in whole or in part any provision of these Regulations.

(b) Any employee(s) of the Utilities and Streets Systems Department that is so authorized by the City Manager may detain and hold for further disposition any person in violation of these regulations. (Ord. 3961 §1, 2006)

Sec. XX-8. Entry and inspection.

The City may enter and inspect any property within the Watershed and under the jurisdiction of these Regulations at reasonable hours for the purpose of determining if any activity is in violation of the provisions hereof and/or is in violation or noncompliance with any permit issued hereunder. In the absence of a bona fide emergency, the City will follow all regulations pertaining to motorized travel and safety procedures when doing inspection. (Ord. 3961 §1, 2006)

Sec. XX-9. Violations; penalties.

(a) It is unlawful to engage in any activity not in compliance with these Regulations or any amendment thereto and/or the permit requirements hereof. Any person, corporation or other legal entity, either as owner, lessee, permittee, occupant or otherwise, who violates any provision of these Regulations and/or who engages in any activity not in compliance with these Regulations shall be charged with a misdemeanor.

(b) Any person, corporation or other legal entity, upon conviction of a violation of these regulations, shall be punished by the imposition of a fine in the amount not to exceed one thousand dollars (\$1,000.00) per day for each offense, or by imprisonment not exceeding ninety (90) days for each offense, or both.

(c) Any person, corporation or other legal entity shall be guilty of a separate offense for each and every day during any portion of which any violation of these regulations is committed, continued or permitted.

(d) Nothing herein shall limit the City from seeking any other remedies available by law or in equity, including but not limited to injunctive relief, the recovery of damages and the payment of costs and reasonable attorneys' fees. All remedies shall be cumulative. (Ord. 3961 §1, 2006)

Sec. XX-10. Enforcement.

(a) "Stop work" or "cease and desist" order. Should the City discover any activity which violates or is reasonably believed by the City to violate any provision(s) of any permit or condition thereof, or an activity is conducted without a required permit or where the information submitted in the application is found to be inaccurate, the City may suspend the activity until compliance with the permit is demonstrated. In such cases, the City Manager or his designee shall post in a conspicuous location on the site a "stop work" or "cease and desist" order. Should the City discover any construction or use of property within the Watershed which is in violation of these Regulations, it shall cause to be attached a "cease and desist" order to the property and attempt to deliver a copy of the same to the owner or occupant of the property. Any "stop work" or "cease and desist" order or "cease and desist" order shall be signed by the City Manager or his or her designee and shall indicate the violations which exist or are reasonably believed to exist. The removal of a "stop work" or "cease and desist" order before the violation is corrected is

prohibited and, upon conviction, a penalty shall be imposed as provided by these Regulations. The continuation of any activity or use in violation of a "stop work" or "cease and desist" order is prohibited and, upon conviction, a penalty shall be imposed as provided by these Regulations.

(b) Revocation of permit. The City may revoke a permit for any violation of these Watershed Regulations, and/or for violation of the permit or any permit condition and/or for the provision of false or incorrect information in the permit application. Revocation shall be preceded by fifteen (15) days written notice to the permittee that the revocation will occur unless the condition(s) which created the violation or noncompliance with the terms of the permit or permit condition is corrected. The City may, in its sole discretion and not to be construed as a waiver of any further action, enter into a corrective action plan with the permittee to restore the site to a condition acceptable to the City in order to prevent further injury to the Watershed. The City may, in its discretion, perform or cause to be performed the necessary restoration and the permittee shall be assessed such costs of restoration.

(c) Duration of construction. Unless otherwise specified in the permit, all construction associated with the permitted activity shall be completed within one (1) year of the issuance of a permit. Extensions of up to six (6) months each may be granted by the City upon a showing of good cause.

(d) Certificate of compliance. At the completion of construction associated with an activity approved under a permit, the applicant shall apply in writing for a certificate of compliance. As soon as reasonably practicable, and not more than twenty (20) days after such request, weather and soil conditions permitting, the City shall inspect the construction associated with the activity and shall determine if these Watershed Regulations, the permit and any permit conditions have been complied with, including but not limited to compliance with all plans and specifications submitted by the applicant or required as a permit condition. If the City determines that the construction associated with the activity conforms to the permit, permit conditions, plan or plans and specifications, and all other required permits or permits incorporated by reference, the City shall issue a certificate of compliance. If the City determines that the construction or other activity associated with the permitted activity does not conform to the permit, permit conditions, plan or plans and specifications, and all other required permits or permits incorporated by reference, the City shall not issue a certificate of compliance. In such case, the permittee shall be informed in writing of the reason why the construction or other activity associated with the permitted activity does not so conform, and the City shall also set forth the requirements to be met, as can be practically specified. Thereafter, the process for review for compliance and issuance or denial of a certificate of compliance shall be as set forth herein. It is a violation of these Regulations for any person who is issued a permit for any activity within the Watershed to conduct such activity after construction is completed without having complied with the requirement to obtain a certificate of compliance as set forth in this Section. (Ord. 3961; Ord.)

Secs. XX-11—XX-20. Reserved.

ARTICLE II

Definitions

Sec. XX-21. Rules of construction.

For the purposes of these Regulations, the words and phrases set forth herein shall have the meanings respectively ascribed to them and, in addition, whenever appropriate with the context, words used in the present tense include the future tense, words used in the singular include the plural and vice versa, the word "shall" is always mandatory and the word "may" is permissive. (Ord. 3961 §1, 2006)

Sec. XX-22. General terms defined.

Whenever the following words or phrases are used, they are defined as follows:

Acceptable Use means any activity within the Watershed that is not required to provide a Watershed Permit, pursuant to Section XX-42 of these regulations.

Activity means any excavating, filling, grading, surfacing, construction or activity, other than noncommercial gardening or landscaping, which changes or enlarges the basic character or the use of the land upon which the activity occurs.

City means the City of Grand Junction and, where appropriate, an officer, employee or authorized agent of the City of Grand Junction.

City Council or Council means the City Council of the City of Grand Junction.

City owned lands in fee simple means fee simple ownership of real property.

Confined Animal Feeding Operations means an animal feeding operation (AFO) at a lot or facility where animals are stabled or confined for a total of 45 days or more in any 12-month period and crops or vegetative growth are not maintained in the normal growing season over the lot or facility.

Domestic Use means the construction of a single family residence of less than 10,000 square feet in total interior square feet construction and maintenance of driveways, landscaping and accessory barns and sheds in connection with single family residence; the maintenance, cutting and clearing of necessary trees and vegetation to accomplish the same; and treatment of noxious weeds and fire fuels management on the single family residential property.

Drilling or *Drilling Operations* means drilling for water, oil, gas, or other natural resources, and includes grading, construction, and traffic activities associated with the drilling.

Excavating means the intentional movement of earth leaving any cut bank over three feet (3') in height or a movement of material in excess of ten (10) cubic yards.

Filling means the intentional movement of earth that results in any earth bank over two feet (2') in height or filled earth over two feet (2') deep, or artificial addition of earth above a line sloping up at a grade of one (1) vertical unit to five (5) horizontal units from the ground before the filling.

Grading means the intentional movement of over five (5) cubic yards of material; movement of any earth or material that changes the natural flow of surface water, or affects or creates a drainage channel; pioneering of a road, cutting or clearing of trees and shrubbery that results in creating a roadway or driveway in excess of twenty-five feet (25') in length; or the use of vehicles or keeping of any animals upon any land that could reasonably lead to a movement of five (5) cubic yards of material within any five (5) year period.

Groundwater means any water existing in a saturated or unsaturated state in the subsurface soils and rock.

Hazardous means a condition, situation, or substance that has the potential to cause harm to humans and the ecosystem.

Impact means any alteration or change resulting directly or indirectly from an action.

Mining means any activity that involves the exploration for or the development (excavation or extraction) of soils, rock, coal, minerals or other geologic materials.

Mitigation means processes or methods which:

a. Avoid an impact upon the land by evaluating alternatives and redesigning an activity;

b. Minimize an impact upon the land by substantially limiting the scope of an activity;

c. Rectify an impact upon the land through the use of remediation, rehabilitation or restoration techniques; or

d. Compensate for the impact upon the land by replacing or providing substitute facilities or resources.

Motorized Vehicle means any vehicle which is self propelled.

Person means any individual, corporation, association, organization, partnership, trust, estate or any other recognized legal entity.

Pollution means the man-made, man-induced or natural alteration of the physical, chemical, biological or radiological composition or integrity of water.

Removing Vegetation means the intentional cutting, burning, grubbing, dragging, chemical killing or any other manner of removing any flora or tree; any shrubs and/or trees, or combination, covering an area of more than one hundred (100) square feet; or any grasses covering an area of more than one thousand (1,000) square feet. Notwithstanding the preceding sentence, "removing vegetation" does not include: removal of clearly diseased or dead trees for domestic uses; clearing of trees in order to construct a single family residence; cutting of Christmas trees for non-commercial purposes; yard or garden work incidental to domestic uses; treatment of noxious weeds; fire fuel reduction on a single family residential property; or, removing vegetation incidental to a lawful use existing as of the date of approval hereof.

Significant degradation means to lower in grade or desirability to a significant, rather than to a minor or trifling, degree.

Substantial means material or considerable in importance, value, degree, amount or extent.

Surfacing means covering soil or prepared areas with asphalt, gravel or similar materials.

Toxic means having a poisonous effect on living organisms.

Waterbody means any surface-water feature including but not limited to streams, creeks, ponds, lakes, impoundments, catchbasins, ditches, drains, canals, springs, seeps, and channels associated with spring and seep discharge.

Watershed is the area designated in Section XX-32 of these regulations, including the hydrologic basins and land area encompassed by the Watershed.

Watershed Permit or *permit* means the written approval issued by the City for an activity within the Watershed.

Waterworks means any and all naturally occurring, man-made or designed components of the City's water collection and delivery system, including but not limited to all springs, seeps, streams,

surface intakes, ditches, drains, pipelines or reservoirs and all decreed points of diversion for the same, and any transmission, storage and filtration facilities which are used in the construction, maintenance and operation of the City's water collection and delivery system.

Wetlands means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. *Wetlands* generally include wet meadows, fens, riparian areas and similar areas. (Ord. 3961 §1, 2006)

Sec. XX-23. Other definitions.

Other words and phrases may be defined elsewhere in these regulations, which definitions shall define said words and phrases necessary for the administration and enforcement of these regulations. (Ord. 3961 $\S1$, 2006)

Secs. XX-24—XX-30. Reserved.

ARTICLE III

Watershed

Sec. XX-31. Establishment of the Watershed.

The City of Grand Junction Watershed is hereby defined and established by the description is Sec. XX- 32 and the Map of the Watershed defined in Sec. XX-33. The Watershed is that area of land in which the City shall exercise its powers to maintain and protect the City's water supply and waterworks from pollution, impairment, injury or damage. (Ord. 3961 §1, 2006)

Sec. XX-32. Jurisdiction.

The jurisdiction of the Watershed shall extend over all of the territory occupied by the City's waterworks, and all springs, seeps, streams, surface intakes, ditches, drains, pipelines and reservoirs used in and necessary for the construction, maintenance and operation of the same, in and including the Sink Creek, Whitewater Creek, North Fork of Kannah Creek (North Fork), and Kannah Creek basins and all water tributary thereto, and all associated surface waters, springs, seeps, groundwater flows and reservoirs, and all water sources and drainage areas tributary thereto for five (5) miles above the points from which water is diverted for use by the City. The Watershed includes all decreed points of diversion for direct flow and storage rights to numerous springs, ditches and reservoirs, all of which are located in all or part of Sections 26, 27, 28, and 31-35 Range 95 West, Township 11 South, Sections 31-36, Range 96 West, Township 11 South, Sections 25, 26 and 32-36, Range 97 West, Township 11 South, Sections 3-9, 17 and 18, Range 95 West, Township 12 South, Sections 1-24 and 26-35, Range 96 West, Township 12 S, Sections 1-36, Range 97 West, Township 12 South, Sections 1, 12-14, 23-26, and 36, Range 98 West, Township 12 South, Sections 2-10 and 15-20, Range 96 West, Township 13 South, Sections 1-4, and 10-14, Range 97 West, Township 13 South, 6th Principal Meridian, and Sections 13 and 24 Range 2 East, Township 2 South, Ute Principal Meridian, Mesa County, Colorado. (Ord. 3961 §1, 2006; Ord. 766 §1, 2006)

Sec. XX-33. Watershed Map.

A Map of the Watershed showing the boundaries of the Watershed, including the boundaries of the land owned in fee simple by the City, with all notations, references and other information shown thereon ("Watershed Map") may be adopted. The Watershed Map may be located at and available for viewing by the public in the office of the City Clerk, and copies are available upon request at a fee established by the City. (Ord. 3961 §1, 2006)

Sec. XX-34. Unlawful to cause injury or damage.

It shall be unlawful for any person to cause injury or damage to the City's waterworks, including all springs, seeps, streams, surface intakes, ditches, drains, pipelines and reservoirs used in and necessary for the construction, maintenance and operation of the same. (Ord. 3961 §1, 2006)

Secs. XX-35—XX-40. Reserved.

ARTICLE IV

Activity within the Watershed

Sec. XX-41. Applicability.

These Watershed Regulations shall apply as established herein. (Ord. 3961 §1, 206)

Sec. XX-42. Permit required; application.

(a) Permit required. No person shall engage, commence or continue any activity, as per Section XX-43, within the Watershed except in conformance with a Watershed Permit issued by the City.

(b) Permit application. Applications for a permit are to be made to the City Manager or his or her designee. The applicant shall submit to the City a complete written description of the proposed activity. The application shall contain, at a minimum, all of the information required by Section XX-51 and XX-61 below, and quality of the information provided shall be such as to enable the City to review the application and make informed recommendations as set forth herein. The City reserves the right to reject all or part of an application that is not complete or does not address all of the requirements of Section XX-51 and XX-61 in a concise and coherent manner. (Ord. 3961 §1, 2006)

Sec. XX-43. Activities Requiring a City Watershed Permit..

It shall be unlawful for any person, company, or publicly or privately-owned organization to engage in any of the following activities without first applying for and obtaining a Watershed Permit under the provisions of these Watershed Regulations and according to the standards set forth in Section XX-61 of these regulations.

- (1) Altering water drainage courses, surface or underground.
- (2) Timber harvesting, except for the approved removal of dead trees and deadfall.
- (3) Surface and subsurface mining operations, including drilling operations.

- (4) Excavating, grading, filling or surfacing of surface and subsurface soils.
- (5) Using, handling, storing or transmitting toxic, hazardous, radioactive or flammable or explosive materials and substances.
- (6) Spraying or the use of pesticides, herbicides and fertilizers.
- (7) Spraying, aerial application, or use of toxic fire retardants.
- (8) Removing or altering vegetation.
- (9) Construction or installation of a wastewater treatment system or sewage disposal system.
- (10) Prescribed fires and fuels reduction activities, except with the approval of the City in cooperation with any federal or state land management agency which seeks to conduct a supervised prescribed burn.
- (11) Confined animal feeding operations involving more than two hundred animals confined to less than 100 acres.
- (12) Discharge of treated or untreated process waters or wastewater.
- (13) Deposit solid waste of any kind.

Sec. XX-44. Activities Not Requiring a City Watershed Permit.

Private land owners conducting normal, domestic single-family development do not require a Watershed Permit, however, conducting these activities does require an advance notice of intent to be submitted to the City.

The City has formalized partnerships with the United States Forest Service, United States Bureau of Land Management and Mesa County to ensure protection of the quality and quantity of the City's municipal water supply through Memorandum's of Understanding (MOU's). The MOU's develop and implement a system for communication and consultation in the processes and practices of developing and implementing local, state and federal land use actions; and to ensure active involvement by each party in new and existing project planning and development within the Grand Junction Watershed Area.

A notice of intent to conduct an activity not requiring a City watershed permit is required from all federal, state, county and other local governments, and private land owners for the activities described in Section XX-44. The purpose of the notice is to promote a "good neighbor" policy by providing the City with proper notification of any activity such that the City can take appropriate action to manage and protect their water resources. The notice of intent may be submitted verbally or by letter addressed to the City describing the details of the proposed activity. Details shall include what activity is proposed, where and when the activity will take place, and the number of acres to be affected. In the case of chemical use, the chemical names and application rates should be reported. A notice of intent to conduct an activity not requiring a City watershed permit does not require completion of a Watershed Permit Application.

The following activities when conducted by the USFS, BLM and Mesa County, which are preapproved in accordance with applicable agency processes. do not require a City Watershed permit.

- (1) Application of pesticides, herbicides, and fertilizers, or other weed control activities.
- (2) Thinning, disease control/eradication, deadfall and fire fuels reduction projects.

- (3) Trail and road maintenance.
- (4) Facility construction and maintenance including:
 - a. Sewage disposal systems,
 - b. Domestic water wells,
 - c. Buildings, corrals, fences, ditches,
 - d. Roads, and
 - e. Farm lands,

to the extent that such activities follow county, state, and federal regulations and guidelines, and any and all existing published best management practices and guidelines protective of water resources in the Watershed.

- (5) Recreation including:
 - a. Hiking,
 - b. Horseback riding,
 - c. Mountain biking,
 - d. Off Highway Vehicle use,
 - e. Annual Lands End Hill Climb road race, and
 - f. Group recreation permits.

Such activities are allowed only on established roads, trail and routes, provided that such use does not substantially impact the Watershed or waterworks. Mountain biking, hiking and horseback riding by the public is permitted on land owned by the City in fee simple within the Watershed on designated routes, provided that such use does not substantially impact the Watershed or waterworks. (Ord. 3961 §1, 2006)

Sec. XX-45. Modes of travel.

The unauthorized use of motorized vehicles by the public on land owned by the City in fee simple within the Watershed is prohibited unless vehicles are confined to an approved, designated USFS or BLM travel route. Motorized vehicle use on land owned by the City in fee simple within the Watershed is permitted for City employees, officials and their agents, employees and officials of the federal government on official business in the Watershed, and for authorized lessees of lands owned by the City of Grand Junction within the Watershed. (Ord. 3961 §1, 2006)

Secs. XX-47—XX-50. Reserved.

ARTICLE V

Administration and Enforcement

Sec. XX-51. Submittal requirements.

The following information is required to be submitted in order to obtain a Watershed Permit for all activities in Section XX-43. To reduce preparation time of submittals, the applicant is encouraged to submit relevant information for each appropriate item that may have been prepared for other land management purposes. In any case, the submitted information must meet the minimal requirements shown below.

The permit application shall contain the following information:

(1) Activity description.

a. Name and address of the applicant and the property owner. If the applicant and the property owner are not the same, a written authorization by the property owner is required before the applicant may appear on behalf of the property owner in regard to the proposed activity.

- b. Legal description of the property to be affected by the activity.
- c. Detailed plans, specifications and sequences of the proposed activity, including the project history if any.
- d. Vicinity topographic map and other pertinent information indicating the site location, access points and proposed routes, and land survey, prepared by a licensed engineer, of the property to be affected by the activity.
- e. A list of all federal, state or local permits or approvals that are required for the proposed activity and copies of any such authorized permits or approvals when and where available.
- f. Copies of all applications and documents submitted to any federal, state or local authority concerning the proposed activity and proof of approval of such documents from the regulating authority(ies) having jurisdiction. Proof of approvals must be submitted to the City as they become available from other agency(ies).
- g. Itemization and volumes of all hazardous, toxic or explosive substances, chemical reagents, gasses and materials to be used, transported, stored or handled as a part of the proposed activity.
- h. Proposed hours of operation of all aspects of the proposed activity.
- (2) Alternatives. A detailed description of any reasonable alternatives to the proposed activity which may result in less of an impact to the Watershed, and why these alternatives were not selected for the preferred action.
- (3) Environmental evaluation and mitigation measures. An environmental evaluation and mitigation measures addressing the following:
 - a. Water resources.
 - 1. A map of all surface waters, springs, seeps, wetlands and groundwater potentially affected by the proposed activity.
 - 2. The existing water quantity (surface discharge or flow, occurrence of groundwater) of all waters reasonably affected by the proposed activity. Sources of information for this submittal may include the City, the U.S. Geological Survey, Colorado Division of Water Resources, local organizations or residents, and other agencies. In remote areas the occurrence of groundwater may not be

known. The applicant should demonstrate that a reasonable effort has been made to investigate existing literature, databases, and other sources of information.

- 3. A detailed description of the potential impacts the proposed activity will have on the quality and quantity of the City's water, waterworks, and/or primary Watersheds.
- 4. A detailed description of proposed mitigation of impacts to the City's water resources.
- 5. A description of the water supply for the proposed activity, including any proposed wells, water rights, diversion structures and facilities, and augmentation plan.
- 6. A detailed description of potential impacts to the Watershed associated with the proposed water supply.
- 7. A detailed description of proposed mitigation of impacts to the Watershed caused by the proposed water supply.
- b. Drainage.
 - 1. A map showing all natural drainage patterns in the area of the Watershed potentially affected by the proposed activity.
 - 2. A detailed description of potential impacts to natural drainage patterns in the Watershed by the proposed activity.
 - 3. A detailed description of proposed mitigation of impacts to natural drainage patterns.

c. Vegetation.

- 1. A map showing the type and extent of all vegetation within three hundred (300) feet of any proposed activity.
- 2. A detailed description of the potential impacts the proposed activity will have on that vegetation.
- 3. A detailed description of proposed mitigation of impacts to vegetation.
- d. Soils.
 - 1. A description of all soil conditions in the area potentially affected by the proposed activity, including contour maps at intervals determined by the City, which identify soil types, drainage areas, slopes, avalanche areas, debris fans, mudflows and rockslide areas.
 - 2. A detailed description of potential impacts to soils by the proposed activity and potential adverse effects to the proposed activity as a result of existing or created soil conditions.
 - 3. A detailed description of proposed mitigation which addresses soil conditions.
- e. Geographic location. A description of all mitigation activities and their locations, a map and legal description of all property upon which mitigation activities may occur and written authorization, easements and any other agreements from such property owners.

- (4) Plans. All plans shall present an introduction stating plan objectives and purpose, detailed descriptions of plan elements, specifications, schematics, if applicable, quality control measures, and schedules. The following plans are to be submitted:
 - a) Water quantity monitoring plan. The plan shall address the following elements: identification of surface water and ground water, baseline, operational, and post-operational monitoring frequencies.
 - b) Spill prevention countermeasures and control plan. The plan shall describe the physical layout and a facility diagram, a contact list and phone numbers for the facility response coordinator, National Response Center, cleanup contractors, and all appropriate federal, state, and local agencies who must be contacted in case of a discharge, a prediction of the direction, rate of flow, and total quantity of spilled material that could be discharged where experience indicates a potential for equipment failure, a description of containment and/or diversionary structures or equipment to prevent discharged fluid from reaching waterbody(s); where appropriate, a demonstration that containment and/or diversionary structures or equipment are not practical; periodic integrity and leak testing of bulk containers and associated valves and piping; spill contingency plan; and a written commitment of manpower, equipment, and materials to guickly control and remove spilled substances; operating procedures to prevent spills; control measures installed to prevent a spill from reaching surface waterbody(s); and countermeasures to contain, clean up, and mitigate the effects of a spill that reaches a waterbody; and a complete discussion of the spill prevention and control measures applicable to the facility and/or its operations.
 - c) Emergency response plan. The plan shall describe the potential threats or risks to the environment as a result of the development on an activity basis, contaminants of concern, development of baseline conditions, potential sources of release and release mechanisms, preventative monitoring, emergency response actions, event monitoring and verification, and reporting.
 - d) Soil erosion, sediment, and stormwater pollution and prevention plan (SWPPP). The plan shall describe planned surface disturbance activities and detailed descriptions of best management practices and mitigative measures for soil erosion, sediment, and stormwater control. Elements of the plan shall be modeled after the USEPA's SWPPP template (<u>http://www.epa.gov/npdes/pubs/sw_swppp_template.doc</u>) and include a description of the following: nature and sequence of construction activities, soils, slopes, vegetation, current drainage patterns, estimate of construction disturbance, calculation of runoff coefficients before and after construction, receiving waterbody(s), site features and sensitive areas to be protected, potential sources of pollution, maps or drawings indicating key features, erosion and sediment control, good-housekeeping, and post-construction Best Management Practices (BMPs), inspection and maintenance schedules, record keeping and training, amendments to the plan, final stabilization, and plan certification and notification.
 - e) Grading plan. A plan describing and showing elevations, dimensions, location and extent of all proposed excavating, filling, grading or surfacing within the Watershed by the proposed activity. The plan shall include plan view and cross-section drawings showing the limits of cut and fill and areas to remain as natural or pre-existing grade. Drawings will show topographic contours of not more than 2-foot elevation. The grading plan drawings will be certified by a Colorado-registered professional engineer.
 - f) Reclamation plan. The plan must describe reclamation activities for all surface and subsurface disturbances meeting or exceeding the standards set forth in the applicable

provisions of Section XX-61. The plan shall include, at a minimum, reclamation of all surface disturbances including equipment to be used, regrading and recontouring, topsoil placement, native seed mix composition and seeding/revegetation methods including planting of saplings if proposed, application of soil amendments (mulch, fertilizer, etc.), monitoring frequency and criteria for evaluating revegetation progress, supplemental or follow-up revegetation work, and final revegetation and reclamation approval criteria. In addition, the plan shall describe in detail the reclamation of all subsurface disturbances including but not limited to well abandonment procedures, other shallow well structures (such as "rat holes" associated with oil and gas development), pipelines, tunnels, adits, shafts, or other underground workings, and piles or subsurface building foundations.

- g) Site security plan. The plan shall present measures to be implemented to secure the operating sites from mischievous acts, vandalism, or possible terrorist activities. Any applicable Homeland Security regulations and issues must be addressed.
- (6) Additional information. Any additional information or certification deemed necessary by the City to determine whether or not the proposed activity will comply with the standards set forth in Section XX-61.
- (7) Waiver of requirements. If sufficient information is available to the City concerning the information required to be within the permit application, the City in its sole discretion may waive such requirement. (Ord. 3961 §1, 2006)

(8) Additional factors. In addition to the foregoing standards, where such review is deemed appropriate, in evaluating any request for a permit, the City may consider the following factors in making an analysis of the proposed activity set forth in the permit application:

- a. The nature and extent of the proposed activity;
- b. The proximity of the proposed activity to existing watercourses and waterworks;
- c. Drainage patterns and control measures;
- d. Soil criteria;
- e. Slope steepness and stability;
- f. Effects of denudation of vegetation;
- g. Geologic hazards, including but not limited to avalanche paths, landslide activity, floodplains, high-water tables, fault zones and similar factors;
- h. The toxicological characteristics of hazardous chemicals or materials to be used or produced
- i. Point-source effluent and emissions into the air or water;
- j. Ambient and nonpoint-source emissions into air and water;
- k. Nature, type and duration of vehicular and motorized activity associated with the proposed activity;
- 1. Effects on wildlife and wildlife habitat; and
- m. Fire hazard. (Ord. 3961 §1, 2006)

n. Emergency response training.

Sec. XX-52. Review and permitting procedures.

(a) Watershed Permit Application. A Watershed Permit Application must be completed by the developer or person(s) proposing an activity or development within the Watershed. The purpose of the application is to notify and inform the City of the proposed activity and allow the City to identify the level of potential impact to the Watershed associated with the activity. A Watershed Permit Application is not required by entities identified under Section XX-44 for the activities described under same section. However, a notice of intent to conduct the activity is required as described under Section XX-44. A copy of the Watershed Permit Application may be found in Appendix A.

(b) City Review. The designee of the City Manager shall review the Watershed Permit Application and determine whether it is complete and of sufficient quality and whether a site inspection is necessary within thirty (30) days of the submittal. If the application is found to be sufficiently complete, the City Manager's designee shall review the application for compliance with these regulations. The City Manager's designee shall prepare a staff report within thirty (30) days of finding that the application is complete and determines a finding of either a Minor or Major Impact to the City's watershed.

(c) Minor Impact. The City Manager's designee may classify an application as having minor impact if the proposed activity has been or will be properly permitted by applicable federal, state or local authorities and if the proposed activity clearly does not violate or present a substantial likelihood of violating any of the standards set forth in Section XX-61. At his or her discretion, the City Manager may review but is not compelled to review the written finding(s) that an application presents a Minor Impact. Upon reviewing a finding of Minor Impact the City Manager may overturn the finding of Minor Impact or may forward the application to the City Council for its review. Within fifteen (15) days following a finding of Minor Impact or a failure of the City Manger to overturn a finding of Minor Impact or forwarding an application to the City Council, the City shall approve the application, conditionally approve the application, or deny the application for a Watershed Permit.

At the discretion of the City Manager's designee, the Watershed Permit submittal requirements as described in Section XX-51, may be reduced or revised for a proposed activity that is determined to be of minor impact.

(d) Major Impact. If the City classifies an application for a proposed activity as a Major Impact or the City Manager forwards an application to the City Council, then the staff report and findings concerning the application shall be submitted to City Council for determination.

The City Manager shall make a recommendation to the Council but that recommendation is not binding on the City Council. After due consideration of the application, the City Manager's recommendation and other relevant and probative evidence, the City Council shall approve the application, conditionally approve the application, or deny the application for a Watershed Permit.

If because of the complexity of the application and/or the proposed activity so requires, the City may unilaterally extend the deadline for the completeness review and the staff report for a period of time not to exceed an additional sixty (60) days. Additional extensions of time may be granted to the City or the applicant by the City Manager or City Council upon a showing of good cause not to exceed 180 days total.

(e) City Council hearing and notice. If an application is to be heard by City Council, a public hearing shall be scheduled within sixty (60) days of filing of the staff report with the City Manager. Not less than thirty (30) days prior to the hearing, and again not less than ten (10) days prior to the hearing, the City shall publish notice stating the date and time, place and purpose of the hearing in a newspaper in general circulation in the City.

(f) Effect of other approvals. If a proposed activity requires the approval of or a permit from federal, state or local authorities, and such approval or permit procedure exceeds the time requirements for City action stated in this Article, the City has an additional ninety (90) days in which to conduct a hearing and render a decision.

(g) Additional information. If the City Council requests additional information from an applicant, then the public hearing and decision may be delayed or continued until the receipt of such additional information.

(h) Permit decision. Within thirty (30) days of the public hearing, the City Council shall approve, approve with conditions or deny the Watershed Permit. Any application for a proposed activity which fails to conform to the standards set forth in Section XX-61 shall be denied.

(i) Establishment of vested rights. The approval or approval with conditions of a permit for a proposed activity shall establish a vested right subject to the provisions of Article 68 of Title 24, C.R.S. (Ord. 3961 §1, 2006)

(j) Request for extension. If during the review process the application is found to be incomplete, contain insufficient information, or otherwise not meet City requirements, the City will provide the applicant with a written response outlining permit inadequacies. The applicant must respond to the inadequacies within 30 days. If necessary, the applicant may submit a request for a time extension to respond to permit inadequacies and provide the required information.

Sec. XX-53. Permit expiration and renewal

A watershed permit is valid for a period of 5 years from the date of City approval. The applicant must apply for permit renewal 6 months prior to the expiration date. The renewal process will be initiated by the City by transmittal of a permit renewal application form to the permit holder. The purpose of the permit renewal process is to allow for the incorporation of new City ordinances, resolutions, or policies that may affect permit content as well as amend or modify the permit in accordance with abandoned or new activities implemented by the permit holder, e.g. the permit may be downgraded from a major impact to a minor impact or vice versa. The permit renewal process may involve minimal to significant documentation depending on the degree of changes in City law and policy and activities of the permittee.

The applicant shall be assessed a permit renewal fee, in accordance with the most current City resolution, to cover the costs incurred by the City for reviewing and processing the renewal application, including the costs of publication, hearing, administration, inspection and enforcement of such requested permit.

Sec. XX-54. Permit closure and release of financial warranty

Watershed permit holders are released from all permit responsibilities upon obtaining permit closure status. Permit closure status is attained once the City has approved of all reclamation activities, including the rehabilitation of disturbed surface acreage and post-operations monitoring of water resources, revegetation, slope or site stabilization, and other potential areas of concern. Once the City has determined that the permittee has satisfactorily met reclamation goals, the City will prepare and submit a letter of permit closure and release of financial warranty to the permittee.

Sec. XX-55. Permit temporary cessation status

Permittees may be granted a temporary cessation of activities for a period of 12 months from the date the permittee provides notice to the City of planned cessation. The City will require the permittee to provide notice of temporary cessation if the City finds cause for such action. The permittee must provide notice of temporary cessation within 30 days of the City's request for the notice. Failure to do so may result in the permit being revoked. After 12 months of temporary cessation status, the watershed permit expires and is no longer valid.

Sec. XX - 56 - 60 Reserved

Sec. XX-61. Standards.

No activity shall be permitted in the Watershed except in compliance with the following standards:

(1) Existing regulations. At a minimum, all applicants and operators must comply with applicable existing regulations as promulgated, administered, and enforced by federal, state, and local governments. Applicable regulations include but are not limited to those of the U.S. Environmental Protection Agency; U.S. BLM; U.S. Forest Service; U.S. Army Corps of Engineers; the Colorado Department of Public Health and Environment; Colorado Oil and Gas Conservation Commission; Colorado Division of Reclamation, Mining and Safety; Colorado Division of Water Resources; and Mesa County. Stipulations in federal or state leases and right-of-ways must be adhered to. The terms and conditions of such permits and approvals shall be incorporated by reference as permit conditions of the City permit. Including the additional standards presented in this section, applicants are encouraged to utilize and implement applicable procedures in the following guidance documents:

- Surface Operating Standards for Oil and Gas Exploration and Development "Gold Book". Prepared by U.S. Dept. of Interior, U.S. Bureau of Land Management, and the U.S. Dept. of Agriculture, U.S. Forest Service, 4th edition 2006
- Forestry Best Management Practices in Watersheds Watershed Academy. See <u>www.epa.gov/watertrain/forestry</u>
- Source Water Protection: Best Management Practices and Other Measures for Protecting Drinking Water Supplies. U.S. Environmental Protection Agency. See <u>http://www.epa.gov/safewater/dwa/electronic/ematerials.html#SWP</u>
- Low Volume Roads Engineering. Best Management Practices Field Guide. G. Keller and J. Sherar. USDA Forest Service/USAID
- Water-Road Interaction Technology Series Documents, United States Forest Service. See <u>http://www.stream.fs.fed.us/water-road/</u>
- Construction Site Storm Water Runoff Control BMP Fact Sheets. U.S. Environmental Protection Agency. See. <u>http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm</u>
- Colorado Stormwater Fact Sheets and Regulations: www.cdphe.state.co.us/wq/PermitsUnit/ stormwater

- (2) Damage to waterworks prohibited. It shall be unlawful for any person to cause impairment, injury, or damage to the City's waterworks, including all groundwater sources, springs, seeps, streams, surface intakes, ditches, drains, pipelines and reservoirs used in and necessary for the construction, maintenance and operation of the same.

(3) Increase in pollution prohibited. All point and nonpoint sources of pollutants caused by or associated with the proposed activity shall not result in any measurable increase in pollution over the existing water quality of any waters of any primary watershed of the City potentially affected by the proposed activity.

(4) Proof of lack of risk. The burden of proving the lack of substantial risk of pollution or injury, in terms of quantity and quality, to the City's water supply and/or waterworks shall be on the person proposing the activity.

(5) Construction in waters prohibited. Construction within any waters of the City's Watershed is prohibited, excluding authorized stream bank reinforcement or repair, dam rehabilitation, water diversion placement or repair or stream crossings approved by performed by or on behalf of the City.

(6) Setbacks. Any activity or the placement of any structure, other than stream crossings, shall be set back a minimum of two hundred (200) feet from any stream, spring, seep, intake structure, ditch, wetlands or reservoir. Fueling, and fuel and chemical storage shall be setback a minimum of five hundred (500) feet from any stream, spring, seep, intake structure, ditch, wetlands or reservoir. Drilling activities shall be set back a minimum of one thousand (1,000) feet from perennial springs or as specified by the City. The City may modify setbacks for each proposed activity.

(7) Erosion control requirements. Temporary (during construction) and permanent erosion and sediment control measures shall be installed and maintained pursuant to a soil erosion control plan. Such soil erosion control plan shall include a description and location of all soil erosion control measures to be installed, and shall be subject to the following additional standards:

a. All erosion control features shall be consistent with any stormwater control plan approved by the State and any other applicable agency for the proposed activity;

b. Dust suppression techniques shall be implemented during construction to minimize any increase in water-borne particulates;

c. Cut and fill shall be kept to a minimum by evaluating alternate construction sites or designs that meet project objectives; final reclamation requires that all disturbed surfaces be regraded to their natural contour;

d. Graded and filled slopes shall be kept to a 3:1 slope ratio or less, and all slopes in excess of thirty-percent gradient shall be left undisturbed;

e. Slope stabilization techniques shall be implemented where soil conditions warrant to prevent soil movement;

f. Berms and ditches shall be constructed before any construction activity begins and shall be installed around graded areas to contain any sediment-laden runoff caused by the proposed activity;

g. Grading and earth-moving activities shall be undertaken in a manner to avoid increased spring runoff flows;

h. All natural vegetation shall be left as undisturbed as practicable. When grading temporary construction sites, an effort will be made to preserve root systems of shrubs and forbs;

i. Impervious or low permeability surfaces shall be constructed as small as possible, and runoff from impervious or low permeability surfaces shall be collected in ditches, trenches or detention areas. No ditches, trenches, detention areas, or other storm runoff capture features will be allowed to directly hydraulically connect to surface water features;

j. Any increase in runoff velocity and amount shall not be greater than those levels which occurred prior to the proposed activity; and

k. No structures or roads shall be built in any avalanche, landslide, or other natural hazard area.

(8) Spill prevention. Measures shall be designed and implemented in accordance with the spill prevention countermeasures and control plan to prevent spilled fuels, lubricants or other hazardous, polluting or toxic materials from entering any waters or being deposited upon any soil in the Watershed during construction, implementation or operation of the proposed activity.

(9) Land Application of Chemicals. The use of pesticides, herbicides and fertilizers within the Watershed must be approved by the City before use.

(10) Revegetation. All vegetated areas within the Watershed disturbed by the activity shall be revegetated or restored in accordance with a submitted and approved reclamation/revegetation plan. Topsoil from all disturbed surfaces (roads included) shall be identified, removed, and stockpiled for later use in site reclamation. Topsoil stockpiles will be revegetated with native grasses and forbs and stabilized using necessary soil erosion control measures within one (1) year of construction. At a minimum, disturbed areas shall be successfully revegetated using a native seed mix within one (1) year of the date of disturbance, or the date of end of use for the planned activity. The City may require modified or enhanced interim reclamation measures for drill pads, mined areas, or other disturbed surfaces.

(11) Water quality monitoring plan. A water quality monitoring plan for all surface and ground waters affected by the proposed activity within the Watershed and City-owned lands contiguous to the Watershed shall be developed and implemented by the City for the specific activity. Portions of the City's existing watershed monitoring plan may apply. The applicant is responsible for reimbursing the City for the cost of preparing and implementing the water quality monitoring plan or otherwise collecting additional data as a result of the activity. The City has the right to hire a third party to carry out water quality sampling and analysis plans. The operator may choose to duplicate sampling at the operator's cost. Such water quality monitoring plan shall include provisions for:

a. Sample locations and frequency of sample collection at the designated locations will be determined by the City and shall reflect the nature and extent of the proposed activity;

b. A description of sampling and analysis techniques and procedures, an analyte list (see below), quality control measures, and detection limits;

c. Parameters to be sampled as determined by the City, including at a minimum the field parameters of pH, temperature, specific conductance, and dissolved oxygen and the analysis of suspended and total dissolved solids and up to all parameters for which there are water quality standards in the affected waters, any potential pollutants associated with the proposed activity and nutrient and *chlorophyll a* for any lake or reservoir samples; See Appendix B for complete list of analytes.

d. Baseline water quality data for at least 5 quarters (3-month periods) prior to the proposed activity; two of the baseline events shall be for baseflow conditions (late 3rd quarter, early 4th quarter); one baseline water quality sampling event shall be during at least one active runoff event prior to the disturbance of any proposed site;

f. Construction and operational water quality monitoring that coincides with any ongoing (active or inactive) operations that poses a potential risk of adverse water quality impacts in the Watershed. The frequency of water quality sampling during construction and operation activities will be on a quarterly basis or in accordance with a schedule mandated by the City;

g. Water quality monitoring for at least one year after final reclamation has met approval (relinquishment) with federal or state agencies, or other local governments. The frequency of post-reclamation monitoring will be established by the City;

h. The provision for periodic reports of the monitoring, frequency and content as determined by the City, including all physical, chemical and biological data and a narrative describing significant findings and trends.

Water quality data must be compiled before, during, and after commercial or industrial activities.

(12) Extended water quality monitoring program. In addition to the water quality monitoring program outlined above, the applicant will also be required to complete a long-term monitoring program for any waters affected by the proposed activity. For activities that involve disturbance of the subsurface (e.g. drilling and mining), and in the case of a known release of a contaminant, water quality monitoring will be required for a period of time after the release or after the activity has ended. The applicant/operator may be asked to cooperate and assist in the sampling of water in drilled wells or mined underground workings. Water quality monitoring will be the responsibility of the City. The applicant is responsible for reimbursing the City for the cost of preparing and implementing the extended water quality monitoring plan or otherwise collecting additional data as a result of the activity. The City has the right to hire a third party to carry out water quality sampling and analysis plans. The operator may choose to duplicate sampling at the operator's cost.

The extended monitoring program may extend for a period of years after the completion of the proposed activity. The extended monitoring program will be developed by the City and include a description of environmental sampling (water, soils, or other media) procedures, a list of sample analytes, and a sampling schedule. All sampling will be completed by the City, who will propose and implement the water quality monitoring program at the expense of the applicant. At a minimum, sampling will occur during base flows once per year. Otherwise, sampling will occur as deemed necessary by the City to assess potential contamination. The applicant may choose to be present during the City's scheduled sampling events at their own expense.

(13) Wastewater treatment. This activity is not permitted in the Watershed. Generated wastewater will be transported from the Watershed and treated in a permitted facility.

(14) Except for sewage disposal systems approved through Mesa County process for individual homeowners, no new sewage disposal system shall be constructed or installed within the Watershed without the City's approval.

(15) Compliance with other permits. The proposed activity shall be constructed, implemented, operated and maintained in compliance with all other applicable federal, state or local permits or approvals at all times. The terms and conditions of such permits and approvals shall be incorporated by reference as permit conditions of the permit.

(16) Mineral Development. Mineral development activities involving development and exploration, production and maintenance, and closure and reclamation shall conform to the following additional standards:

a. No process water pits, impoundments, or basins will be permitted unless otherwise approved by the City.

- b. No land treatment of produced, process, or mine drainage waters is allowed.
- c. No discharge of produced, process, or mine drainage waters is permitted in the Watershed. All mine drainage, and other process or waste waters or fluids must be disposed of in a permitted facility located outside of the Watershed boundary. All wastes are to be transported from the Watershed in a timely manner, using closed transport systems. Wastes are not to be injected or discharged into wells or any type of drilled borehole.
- c. No underground injection wells for disposal of wastes of any type are permitted.

d Flaring, burning of waste, or welding will occur only in areas approved by the City.

e Waste rock that has an acid generation potential or the potential to produce other leachate that would cause degradation of water resources shall be effectively neutralized.

(17) Energy Development. Energy development activities involving development and exploration, production and maintenance, and closure and reclamation, including but not limited to oil and gas exploration, development, processing, or transmission; other forms of energy development; extraction; and utility construction (including pipelines, power lines, etc.) shall conform to the Watershed Plan for the Town of Palisade and the City of Grand Junction developed in collaboration with Genesis Gas and OIL, LLC dated 2007, which is incorporated herein by this reference as if fully set forth and the following additional standards:

a. No drilling pits of any kind will be allowed when drilling with water or other drilling fluids. Drilling with fluids must be conducted with closed systems. No process water pits, impoundments, or basins will be permitted unless otherwise approved by the City.

Drilling with air or air mist methods requires that all borehole cuttings be contained.

- b. Chemicals used in hydraulic fracturing will be fully disclosed prior to use.
- c. Well Construction Cementing/Casing programs will conform to the steps outlined in the "Watershed Plan for the Town of Palisade and the City of Grand Junction". In addition to these steps all Surface Casing drilling will be drilled with air or air mist methods.
- d. No land treatment of produced, process waters is allowed.
- e. No discharge of produced, process, drilling waters is permitted in the Watershed. All drilling, produced, and other process or waste waters or fluids must be disposed of in a permitted facility located outside of the Watershed boundary. All wastes are to be transported from the Watershed in a timely manner, using closed transport systems. Wastes are not to be injected or discharged into wells or any type of drilled borehole.
- f. No underground injection wells for disposal of wastes of any type are permitted.

g. Flaring, burning of waste, or welding will occur only in areas approved by the City.

Sec. XX-62. Issuance of permit; permit conditions.

The City Council may prescribe any condition or conditions in a permit that it may deem necessary to effectuate the powers granted to the City to protect the waterworks and the City water supply from pollution, impairment, injury or damage. (Ord. 3961 §1, 2006)

Sec. XX-63. Inspectors/Inspections.

The City retains the right to conduct inspections, by its own forces or by the forces of a third party, of the activity for which a Watershed Permit has been issued. Inspections may be made at any time with or without prior notice to the applicant. The permitee shall be assessed the reasonable cost of inspection(s).

Sec. XX-65. Permit Transferability.

Permits may not be transferred from one company, individual, entity, etc., to another. Successors will need to apply for a new permit.

Sec. XX-66. Financial Warranty.

After an application for a permit has been approved by the City, but before such permit is issued, the applicant shall file with the City, on a form prescribed and furnished by the City, a performance financial warranty payable to the City of Grand Junction. The performance financial warranty will be conditioned upon the faithful performance of all the requirements of these Regulations, the City Watershed Ordinance, and the permit.

The form of the financial warranty will be in a form prescribed by the City, such as cash bonds, cash escrow accounts, or certificates of deposit. Other types of financial warranties may be accepted. In the case of cash bonds, any interest accrued during the warranty period will benefit the financial warrantor, except in the case that the permit is revoked. If a permit is revoked, the interest will accrue to the City, and will be used for the performance of reclamation.

The performance financial warranty shall cover the area of land within the permit area upon which activities are to be initiated and conducted. The amount of financial warranty will be determined using an objective, qualified professional engineer using fundamental principals of engineering cost estimation. The amount of the warranty shall be sufficient to assure high water quality within the Watershed if the final reclamation and or well closure had to be performed by the City, or by independent contractors, in the event of forfeiture. The City shall hire the engineer and the permitee shall be assessed the cost for obtaining this estimate. Liability under the warranty or warranties applicable to a permit shall be for the duration of the activity and shall continue until release of the warranties as determined by the City.

The City shall release a performance financial warranty, in whole or in part, when it is satisfied that the water quality of waters covered by the warranty or portion thereof affected by the operation has been returned to its original or higher quality as tested before the activity commenced, as required by these Regulations.

Sec. XX-67. Fees and review costs.

The applicant shall be assessed a fee, in accordance with the most current City Council fee resolution, to cover the costs incurred by the City for reviewing and processing the application, including the costs of publication, hearing, administration, inspection and enforcement of such requested permit.

In addition, the applicant shall also be assessed the costs of any legal and technical consultants retained or employed by the City for the purpose of evaluating the application's compliance with these Watershed regulations. An initial fee deposit based on the City's reasonable estimate of the total anticipated fees, including any consultant's fees, shall be paid by the applicant to the City within fifteen (15) days of the fee being set by the City. Any balance of fees owed by the applicant to the City shall be paid prior to and shall be a condition for the issuance of any permit or, if no permit is issued, such balance of fees shall be payable within fifteen (15) days of billing by the City. Any unused fees shall be returned to the applicant timely in either event. (Ord. 3961 §1, 2006)

Sec. XX-68. Proof of Insurance.

Prior to issuance of a permit, each applicant shall provide proof of complying insurance policies obtained by the applicant in satisfaction of the requirements of applicable regulating agencies, including but not limited to the City. The form of the proof of insurance shall be determined by the City. The proof of insurance must demonstrate current coverage in an amount adequate to compensate for personal injury and/or property damage as a result of the proposed activity and/or any environmental degradation that the activity may cause or reasonably be claimed to cause. The applicant shall provide proof of current Pollution Liability Insurance policy with a single event limit of \$1,000,000 for Minor Impact activities and \$5,000,000 for Major Impact activities. The City shall be an additional named insured for all coverages. The required insurance shall be provided by a Colorado licensed insurance company(ies). Required insurance policies shall remain in full force and effect during the life of the permit and any renewal thereof, including completion of all activities and reclamation. The City may accept from the applicant written evidence that the applicant has satisfied applicable State or Federal self-insurance requirements. The City may accept complying State or Federal self insurance in lieu of other coverage(s).

Sec. XX-69 - 70. Reserved.

ARTICLE VI

Appeal

Sec. XX-71. Appeal of administrative decision.

Any person, including the permittee and other persons having standing, may appeal any administrative action, determination or decision of the City Manager by filing a written appeal with the City Clerk not later than thirty (30) days following the action, determination or decision being appealed. A timely appeal shall be heard by the City Council at the next regularly scheduled City Council meeting if practicable, but in no event shall the appeal be heard more than sixty (60) days after the written appeal is filed. The appeal shall state with particularity the decision being appealed and the grounds for the appeal, including citations to these Regulations, the Watershed Ordinance and/or other applicable law. (Ord. 3961)

Sec. XX-72. Appeal of City Council's decision.

Any person, including the permittee and other persons having standing, may seek review of a decision of the City Council by bringing an action in Mesa County District Court in accordance with Colorado Rule of Civil Procedure 106(a)(4). (Ord. 3961)

Appendix A CITY OF GRAND JUNCTION WATERSHED PERMIT APPLICATION

Authority and Purpose:

In accordance with state of Colorado C.R.S. §31-15-707 (1) (b), the City of Grand Junction is authorized to restrict any activity, or require changes in the way an activity of use is performed, within a watershed which creates a substantial risk of pollution or injury to the City's water supply or waterworks and/or the lands from under, or across or through which the water flows or is gathered. Applicants are required to comply with all guidelines and restrictions set forth in the Grand Junction Watershed Ordinance Rules and Regulations (Ord. 3961).

This Watershed Application Permit is designed to ensure that the City of Grand Junction watershed is sufficiently protected by all individuals conducting any activity within the watershed that may endanger the present level of water quality and quantity. All attachments, statements, and assurances provided herein by the applicant, its contractors, subcontractors, leasers, or successors will be reviewed for completion by the City of Grand Junction and the applicant will be notified regarding approval within 30 days.

SECTION 1 – Applicant Information

Company: Name:	ly) (add additional sheets if necessary)		
Owner/Operator:	Phone:	Fax:	
Address:			
Individual to Contact: Name:	Phone:	Cell:	
	Phone:	Cell:	_
Address:			
Affected Land			
Owner Name:	Phone	: Cell:	
Authorized Representative:	Phone	: Cell:	
Address:			
Property Location/Characteristics			
Property Location/Characteristics USGS Quarter Section Location: Sect Twn	shp N S Range E W	1/4: NW SW NE SE	
		1/4: NW SW NE SE	
USGS Quarter Section Location: Sect. Twn		1/4: NW SW NE SE	
USGS Quarter Section Location: Sect. Twn: Access to Property:		1/4: NW SW NE SE	
USGS Quarter Section Location: Sect Twn: Access to Property: Approximate Elevation:		1/4: NW SW NE SE	
USGS Quarter Section Location: Sect Twn. Access to Property: Approximate Elevation: Slope %			

SECTION 2 – Activity Information

APPLICANT/ORGANIZATION	ACTIVITY						
Commercial/Industrial	Road/Pad Construction						
Oil and Gas	Drilling						
Mining/Mineral Exploration	Materials/Waste Treatment, Storage, Disposal						
Material of Interest	Pipeline Construction						
Utility	Compressor Station						
Land Development	Gas Processing Facility						
Recreation	Mine Development and Method	_					
	Building Construction						
Private Land Owner	Septic Systems/Sewage Construction						
	Livestock Facility Construction						
Government	Timber Harvesting						
Federal	Road Construction						
County	Road Maintenance						
Municipal	New Facility Construction						
	Facility Improvement						
Water Supply	Facility Maintenance						
Water Company	Trail Maintenance						
Other	Weed Control						
	Well Permit/Construction						
Other:	Surface Water Diversion						
	Fire Suppression/Fuels Reduction						
	Other:						
	Other:						
	Other:						

SECTION 3 – Permits/Regulations Applicable to Specified Activity

	Not Applicable	Permit Type	In Progress	Completed
Colorado Department of Public Health and Environment				
Colorado Division of Reclamation, Mining, and Safety				
Colorado Division of Water Resources				
Colorado Oil and Gas Conservation Commission				
Colorado Water Quality Control Commission				
Mesa County				
US Army Corps of Engineers				
US BLM (NEPA, right-of-way, lease)				
US Forest Service (Plan of Operations)				

SECTION 4 - Application Fee

The applicant shall be assessed a fee to cover the costs incurred by the City for reviewing and processing the application, including the costs of publication, hearing, administration, inspection and enforcement of such requested permit. The applicant shall also be assessed the costs of any legal and technical consultants retained or employed by the City for the purpose of evaluating the application's compliance with these Watershed regulations. An initial fee deposit based on the City's reasonable estimate of the total anticipated fees, including any consultant's fees, shall be paid by the applicant to the City within fifteen (15) days of the fee being set by the City. Any balance of fees owed by the applicant to the applicant to the issuance of any permit or, if no permit is issued, such balance of fees shall be payable within fifteen (15) days of billing by the City. Any unused fees shall be returned to the applicant timely in either event. (Ord. 3961 §1, 2006)

Billable Party

The Billable Party, by signing below, herby agrees to reimburse the City the actual costs to the City for engineering, surveying and legal services rendered in connected with the review of the application. The Billable Party agrees that interest shall be imposed at a rate of 1.5% per month on all balances not paid within thirty (30) days of the date of the statement. In addition to any and all remedies available to the City and in the event the City is forced to pursue collection of any amounts due and unpaid, the City shall be entitled to collect attorney's fees and costs incurred in said collection efforts in addition to the amount due to unpaid.

Address	City/Town	Zip Code
Phone	Fax	
Signature		
STAFF USE ONLY		
Applicant	Phone #	
Fees:	(date)	
Application Received (date)		
Permit /	Application Number:	
Notary Public		
My commission expires		

Appendix B Water Quality Standards for the Grand Junction Watershed Area Lower Gunnison River Basin Established by Colorado Water Quality Control Commission

- Segment 3 (All tributaries to the Gunnison River on national forest lands) uses: <u>Includes portions of Brandon Ditch</u>, Whitewater Creek and North Fork Kannah Creek located on national forest lands.
 - Aquatic Life Cold Class 1
 - Recreation E
 - Water Supply
 - Agriculture
 - Ambient water quality conditions as of January 1, 2000 are not to be exceeded for any water quality standard.
- Segment 4a (All tributaries to the Gunnison River not on national forest lands) uses: <u>Includes portions of Brandon Ditch</u>, Whitewater Creek and North Fork Kannah Creek not located on national forest lands.
 - Use Protected
 - Aquatic Life Warm Class 2
 - Recreation N
 - Water Supply
 - Agriculture
- Segment 4b (All lakes and reservoirs that are tributary to the Gunnison River and not on national forest lands, including all tributaries to Reeder, Hollenbeck and Juniata Reservoirs) uses:
 - Use Protected
 - Aquatic Life Warm Class 2
 - Recreation E
 - Water Supply
 - Agriculture
- Segment 8 (Mainstem of Kannah Creek, including all tributaries, from the boundary of national forest lands to the point of diversion for public water supply) uses:
 - Aquatic Life Cold Class 1
 - Recreation E
 - Water Supply
 - Agriculture
 - Ambient water quality conditions as of January 1, 2000 are not to be exceeded for any water quality standard.

Parameter		Water Quality Standard							
	Brandon Ditch (USFS lands)	Brandon Ditch (non-USFS lands)	North Fork Kannah Creek (USFS lands)	North Fork Kannah Creek (non-USFS lands)	Whitewater Creek (USFS lands)	Whitewater Creek (non- USFS lands)			
Radionuclide Standards									
Americium 241	0.15	0.15	0.15	0.15	0.15	0.15	Picocuries per Liter		
Cesium 134	80	80	80	80	80	80	Picocuries per Liter		
Plutonium 239 and 240	0.15	0.15	0.15	0.15	0.15	0.15	Picocuries per Liter		
Radium 226 and 228	5	5	5	5	5	5	Picocuries per Liter		
Strontium 90	8	8	8	8	8	8	Picocuries per Liter		
Thorium 230 and 232	60	60	60	60	60	60	Picocuries per Liter		
Tritium	20,000	20,000	20,000	20,000	20,000	20,000	Picocuries per Liter		
Organic Chemicals									
Acenaphthene	420	420	420	420	420	420	Micrograms per Liter		
Acrolein	3.5	3.5	3.5	3.5	3.5	3.5	Micrograms per Liter		
Acrylamide	0.0078	0.0078	0.0078	0.0078	0.0078	0.0078	Micrograms per Liter		
Acrylonitrile	0.065	0.065	0.065	0.065	0.065	0.065	Micrograms per Liter		
Alachlor	2	2	2	2	2	2	Micrograms per Liter		
Aldicarb	7	7	7	7	7	7	Micrograms per Liter		
Aldicarb Sulfone	7	7	7	7	7	7	Micrograms per Liter		
Aldicarb Sulfoxide	7	7	7	7	7	7	Micrograms per Liter		
Aldrin	0.0021	0.0021	0.0021	0.0021	0.0021	0.0021	Micrograms per Liter		
Aniline	6.1	6.1	6.1	6.1	6.1	6.1	Micrograms per Liter		
Anthracene (PAH)	2,100	2,100	2,100	2,100	2,100	2,100	Micrograms per Liter		
Aramite	1.4	1.4	1.4	1.4	1.4	1.4	Micrograms per Liter		
Atrazine	3	3	3	3	3	3	Micrograms per Liter		
Azobenzene	0.32	0.32	0.32	0.32	0.32	0.32	Micrograms per Liter		
Benzene	2.3 to 5	2.3 to 5	2.3 to 5	2.3 to 5	2.3 to 5	2.3 to 5	Micrograms per Liter		
Benzidine	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015	Micrograms per Liter		
Benzo(a)anthracene (PAH)	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	Micrograms per Liter		
Benzo(a)pyrene (PAH)	0.0048 to 0.2	0.0048 to 0.2	0.0048 to 0.2	0.0048 to 0.2	0.0048 to 0.2	0.0048 to 0.2	Micrograms per Liter		
Benzo(b)fluoranthene (PAH)	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	Micrograms per Liter		
Benzo(k)fluoranthene (PAH)	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	Micrograms per Liter		
Benzo(g,h,i)perylene (PAH)	0.0038	0.0038	0.0038	0.0038	0.0038	0.0048	Micrograms per Liter		
Benzotrichloride	0.0027	0.0027	0.0027	0.0027	0.0038	0.0038	Micrograms per Liter		
Benzyl chloride	0.21	0.21	0.0027	0.21	0.0027	0.0027	Micrograms per Liter		
Bis(chloromethyl)ether (BCME)	0.00016	0.00016	0.00016	0.00016	0.21	0.00016	Micrograms per Liter		
Bromate	0.050	0.050	0.050	0.050	0.050	0.050	Micrograms per Liter		
Bromodichloromethane (HM)	11,000	11,000	11,000	11,000	0.050	0.050	Micrograms per Liter		

Bromoform (HM)	4.3	4.3	4.3	4.3	4.3	4.3	Micrograms per Liter
Butyl benzyl phthalate	1,400	1,400	1,400	1,400	1,400	1,400	Micrograms per Liter
Carbofuran	35 to 40	Micrograms per Liter					
Carbon tetrachloride	0.27 to 5	Micrograms per Liter					
Chlordane	0.0043	0.0043	0.0043	0.0043	0.0043	0.0043	Micrograms per Liter
Chlorethyl ether (BIS-2)	0.032	0.032	0.032	0.032	0.032	0.032	Micrograms per Liter
Chlorobenzene	100	100	100	100	100	100	Micrograms per Liter
Chlorodibromomethane (HM)	54.0	54.0	54.0	54.0	54.0	54.0	Micrograms per Liter
Chloroform (HM)	3.4	3.4	3.4	3.4	3.4	3.4	Micrograms per Liter
Chloroisopropyl ether(BIS-2)	280	280	280	280	280	280	Micrograms per Liter
4-Chloro-3-methylphenol	30	30	30	30	30	30	Micrograms per Liter
Chloronapthalene	560	560	560	560	560	560	Micrograms per Liter
Chlorophenol,2-	35	35	35	35	35	35	Micrograms per Liter
Chlorphrifos	0.041	0.041	0.041	0.041	0.041	0.041	Micrograms per Liter
Chrysene (PAH)	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	Micrograms per Liter
DDD	0.15	0.15	0.15	0.15	0.15	0.15	Micrograms per Liter
DDE	0.1	0.1	0.1	0.1	0.1	0.1	Micrograms per Liter
DDT	0.001	0.001	0.001	0.001	0.001	0.001	Micrograms per Liter
Dalapon	200	200	200	200	200	200	Micrograms per Liter
Demeton	0.1	0.1	0.1	0.1	0.1	0.1	Micrograms per Liter
Dibenzo(a,h)anthracene (PAH)	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	Micrograms per Liter
1,2 Dibromo-3-Chloropropane (DBCP)	0.2	0.2	0.2	0.2	0.2	0.2	Micrograms per Liter
Dichloroacetic acid	0.7	0.7	0.7	0.7	0.7	0.7	Micrograms per Liter
Dichlorobenzene 1,2	600	600	600	600	600	600	Micrograms per Liter
Dichlorobenzene 1,3	94	94	94	94	94	94	Micrograms per Liter
Dichlorobenzene 1,4	75	75	75	75	75	75	Micrograms per Liter
Dichlorobenzidine	0.078	0.078	0.078	0.078	0.078	0.078	Micrograms per Liter
Dichloroethane 1,2	0.38 to 5	Micrograms per Liter					
Dichloroethylene 1,1	7	7	7	7	7	7	Micrograms per Liter
Dichloroethylene 1,2-cis	70	70	70	70	70	70	Micrograms per Liter
Dichloroethylene 1,2-trans	100	100	100	100	100	100	Micrograms per Liter
Dichlorophenol 2,4	21	21	21	21	21	21	Micrograms per Liter
Dichlorophenoxyacetic acid (2,4- D)	70	70	70	70	70	70	Micrograms per Liter
Dichloropropane 1,2	0.52 to 5	Micrograms per Liter					
Dichloropropylene 1,3	0.35	0.35	0.35	0.35	0.35	0.35	Micrograms per Liter

Dichlorvos	0.12	0.12	0.12	0.12	0.12	0.12	Micrograms per Liter
Dieldrin	0.002	0.002	0.002	0.002	0.002	0.002	Micrograms per Liter
Diethyl phthalate	5,600	5,600	5,600	5,600	5,600	5,600	Micrograms per Liter
Diisopropylmethylphosphonate (DIMP)	8	8	8	8	8	8	Micrograms per Liter
Dimethylphenol 2,4	140	140	140	140	140	140	Micrograms per Liter
Dimethyl phthalate	70,000	70,000	70,000	70,000	70,000	70,000	Micrograms per Liter
Di-n-butyl phthalate	700	700	700	700	700	700	Micrograms per Liter
Dinitrophenol 2,4	14	14	14	14	14	14	Micrograms per Liter
Dinitro-o-cresol 4,6	0.27	0.27	0.27	0.27	0.27	0.27	Micrograms per Liter
Dinitrotoluene 2,4	0.11	0.11	0.11	0.11	0.11	0.11	Micrograms per Liter
Dinitrotoluene 2,6	230	230	230	230	230	230	Micrograms per Liter
Dinoseb	7	7	7	7	7	7	Micrograms per Liter
Dioxane 1,4-	6.1(effective through 3/21/2010)	6.1(effective through 3/21/2010)	6.1(effective through 3/21/2010)	6.1(effective through 3/21/2010)	6.1(effective through 3/21/2010)	6.1(effective through 3/21/2010)	Micrograms per Liter
Dioxane 1,4-	3.2(effective 3/22/2010)	3.2(effective 3/22/2010)	3.2(effective 3/22/2010)	3.2(effective 3/22/2010)	3.2(effective 3/22/2010)	3.2(effective 3/22/2010)	Micrograms per Liter
Dioxin (2,3,7,8 TCDD)	2.2x10 ⁻⁷ to 3.0x10 ⁻⁵	2.2×10^{-7} to 3.0×10^{-5}	2.2x10 ⁻⁷ to 3.0x10 ⁻⁵	Micrograms per Liter			
Diphenylhydrazine 1,2	0.044	0.044	0.044	0.044	0.044	0.044	Micrograms per Liter
Di(2-ethylhexyl)adipate	400	400	400	400	400	400	Micrograms per Liter
Diquat	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	15 to 20	Micrograms per Liter
Endosulfan	0.056	0.056	0.056	0.056	0.056	0.056	Micrograms per Liter
Endosulfan, alpha	0.056	0.056	0.056	0.056	0.056	0.056	Micrograms per Liter
Endosulfan, beta	0.056	0.056	0.056	0.056	0.056	0.056	Micrograms per Liter
Endosulfan sulfate	0.056	0.056	0.056	0.056	0.056	0.056	Micrograms per Liter
Endothall	100	100	100	100	100	100	Micrograms per Liter
Endrin	0.036	0.036	0.036	0.036	0.036	0.036	Micrograms per Liter
Endrin aldehyde	2.1	2.1	2.1	2.1	2.1	2.1	Micrograms per Liter
Epichlorohydrin	3.5	3.5	3.5	3.5	3.5	3.5	Micrograms per Liter
Ethylbenzene	700	700	700	700	700	700	Micrograms per Liter
Ethylene dibromide	0.00041 to 0.05	0.00041 to 0.05	0.00041 to 0.05	0.00041 to 0.05	0.00041 to 0.05	0.00041 to 0.05	Micrograms per Liter
Ethylhexyl phthalate (BIS-2)	2.5 to 6	2.5 to 6	2.5 to 6	2.5 to 6	2.5 to 6	2.5 to 6	Micrograms per Liter
Fluoranthene (PAH)	280	280	280	280	280	280	Micrograms per Liter
Fluorene (PAH)	280	280	280	280	280	280	Micrograms per Liter

Folpet	10	10	10	10	10	10	Micrograms per Liter
Furmecyclox	1.2	1.2	1.2	1.2	1.2	1.2	Micrograms per Liter
Glyphosate	700	700	700	700	700	700	Micrograms per Liter
Guthion	0.01	0.01	0.01	0.01	0.01	0.01	Micrograms per Liter
Heptachlor	0.008 to 0.4	Micrograms per Liter					
Heptachlor epoxide	0.0038	0.0038	0.0038	0.0038	0.0038	0.0038	Micrograms per Liter
Hexachlorobenzene	0.022 to 1.0	Micrograms per Liter					
Hexachlorobutadiene	0.45	0.45	0.45	0.45	0.45	0.45	Micrograms per Liter
Hexachlorocyclohexane, Alpha	0.0056	0.0056	0.0056	0.0056	0.0056	0.0056	Micrograms per Liter
Hexachlorocyclohexane, Beta	0.019	0.019	0.019	0.019	0.019	0.019	Micrograms per Liter
Hexachlorocyclohexane, Gamma (Lindane)	0.08	0.08	0.08	0.08	0.08	0.08	Micrograms per Liter
Hexachlorocyclohexane, Technical	0.012	0.012	0.012	0.012	0.012	0.012	Micrograms per Liter
Hexachlorocyclopentadiene (HCCPD)	5	5	5	5	5	5	Micrograms per Liter
Hexachlorodibenzo-p-dioxin (1,2,3,7,8,9-hcdd)	5.60E-06	5.60E-06	5.60E-06	5.60E-06	5.60E-06	5.60E-06	Micrograms per Liter
Hexachloroethane	0.7	0.7	0.7	0.7	0.7	0.7	Micrograms per Liter
Hydrazine/Hydrazine sulfate	0.012	0.012	0.012	0.012	0.012	0.012	Micrograms per Liter
Indeno(1,2,3-cd)pyrene (PAH)	0.0048	0.0048	0.0048	0.0048	0.0048	0.0048	Micrograms per Liter
Isophorone	140	140	140	140	140	140	Micrograms per Liter
Malathion	0.1	0.1	0.1	0.1	0.1	0.1	Micrograms per Liter
Methoxychlor	0.03	0.03	0.03	0.03	0.03	0.03	Micrograms per Liter
Methyl bromide (HM)	9.8	9.8	9.8	9.8	9.8	9.8	Micrograms per Liter
Methyl chloride (HM)	5.6	5.6	5.6	5.6	5.6	5.6	Micrograms per Liter
4,4-Methylene bis (N,N'- dimethyl)aniline	0.76	0.76	0.76	0.76	0.76	0.76	Micrograms per Liter
Methylene chloride	4.7 to 5	Micrograms per Liter					
Mirex	0.001	0.001	0.001	0.001	0.001	0.001	Micrograms per Liter
Naphthalene (PAH)	140	140	140	140	140	140	Micrograms per Liter
Nitrobenzene	3.5	3.5	3.5	3.5	3.5	3.5	Micrograms per Liter
Nitrophenol 4	56	56	56	56	56	56	Micrograms per Liter
Nitrosodibutylamine N	0.0065	0.0065	0.0065	0.0065	0.0065	0.0065	Micrograms per Liter
Nitrosodiethylamine N	0.00023	0.00023	0.00023	0.00023	0.00023	0.00023	Micrograms per Liter
Nitrosodimethylamine N	0.00069	0.00069	0.00069	0.00069	0.00069	0.00069	Micrograms per Liter
N-Nitrosodiethanolamine	0.013	0.013	0.013	0.013	0.013	0.013	Micrograms per Liter
Nitrosodiphenylamine N	7.1	7.1	7.1	7.1	7.1	7.1	Micrograms per Liter
N-Nitroso-N-methylethylamine	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	Micrograms per Liter

	spawning)		spawning)		spawning)		
pH	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	Standards Units
Temperature	Max 20° with 3° increase	None	Max 20° with 3° increase	None	Max 20° with 3° increase	None	Degrees Celsius
Biological Standards							
E. coli	126	630	126	630	126	630	Per 100 mL
Inorganic Standards							
Ammonia, Total	3.91	0.75	3.69	0.68	3.91	0.90	Milligrams per Liter a
Total Residual Chlorine	0.011	0.011	0.011	0.011	0.011	0.011	Milligrams per Liter
Cyanide - Free	0.005	0.005	0.005	0.005	0.005	0.005	Milligrams per Liter
Fluoride	2.0	2.0	2.0	2.0	2.0	2.0	Milligrams per Liter
Nitrate	10	10	10	10	10	10	Milligrams per Liter a
Nitrite	0.06	0.06	0.06	0.06	0.06	0.14	Milligrams per Liter a
Sulfide	0.002	0.002	0.002	0.002	0.002	0.002	Milligrams per Liter a
Sunde	undissociated	undissociated	undissociated	undissociated	undissociated	undissociated	H ₂ S ·
Boron	0.75	0.75	0.75	0.75	0.75	0.75	Milligrams per Liter
Chloride	250	250	250	250	250	250	Milligrams per Liter
Sulfate	250	250	250	250	250	250	Milligrams per Liter
Asbestos	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	Fibers per Liter
Metals Standards							
Aluminum	750	750	750	750	750	750	Micrograms per Liter
Antimony	6.0	6.0	6.0	6.0	6.0	6.0	Micrograms per Liter
Arsenic	0.02 - 10	0.02 - 10	0.02 - 10	0.02 - 10	0.02 - 10	0.02 - 10	Micrograms per Liter
Barium	490	490	490	490	490	490	Micrograms per Liter
Beryllium	4.0	4.0	4.0	4.0	4.0	4.0	Micrograms per Liter
Cadmium	0.15	0.25	0.15	0.34	0.15	0.58	Micrograms per Liter
Chromium III	24	42	24	50	24	50	Micrograms per Liter
Chromium VI	11	11	11	11	11	11	Micrograms per Liter
Copper	2.7	5.0	2.7	7.0	2.7	13	Micrograms per Liter
Iron	300	300	300	300	300	300	Micrograms per Liter
Lead	0.5	1.2	0.5	1.8	0.5	3.9	Micrograms per Liter
Manganese	50	50	50	50	50	50	Micrograms per Liter
Mercury	1.4	1.4	1.4	1.4	1.4	1.4	Micrograms per Liter
Nickel	16	29	16	41	16	72	Micrograms per Liter
Selenium	4.6	4.6	4.6	4.6	4.6	4.6	Micrograms per Liter
Silver	0.01	0.02	0.01	0.05	0.01	0.15	Micrograms per Liter
Thallium	0.24	0.24	0.24	0.24	0.24	0.24	Micrograms per Liter
Uranium	30	30	30	30	30	30	Micrograms per Liter
Zinc	38	69	38	97	38	176	Micrograms per Liter

Attach W-4 Water Conservation Efforts

CITY COUNCIL AGENDA								
Subject		Parks & Recreation Dep't Water Conservation Through Central Control Irrigation						
Meeting Date	Ju	June 18, 2007						
Date Prepared	Ju	ne 13,	200	7		File #		
Author	Do	on Hobl	os		Ass't. Director, Parks and Recreation			
Presenter Name	Do	on Hobl	bs		Ass't. Director, Parks and Recreation			
Report results back to Council	X	No		Yes	When			
Citizen Presentation		Yes	Х	No	Name			
X Workshop	-	Foi	rmal	l Agen	da	Consent	Individual Consideration	

CITY OF GRAND JUNCTION

Summary: Over the past three years the Parks and Recreation has converted previously on-site controlled irrigation systems to a centrally controlled system. This change has resulted in a saving of both treated and non-treated water.

Background Information: Beginning in 2004, and continuing into 2005 and 2006, the Parks and Recreation Department has converted the majority of the automated irrigation systems from site-based controllers to a centrally controlled computerized system. The conversion included the purchase of a central computer, central processing units for ten sites and new controllers and radio / telephone connection equipment for parks and greenways.

In 2004 the controllers at twenty sites in the south part of Grand Junction were converted. Twenty-seven additional sites were added to the system in 2005 and by the end of 2006 the central computer in Lincoln Park was communicating with ten central processing units, sending information to seventy-seven clocks, controlling over 760 valves, and nearly 13,000 individual sprinklers. Depending on the site, the communication between central computer and the central processing unit is accomplished either via direct wire or direct wired phone lines. In most cases a UHF two-way radio link connects the central processing unit to the park's on-site irrigation clock. Weather stations at Lincoln Park and Canyon View Park (A third station at Tiara Rado services the golf course) send daily weather condition information, used in calculating evapotranspiration (ET) rates, to the central computer. The central computer calculates the ET rate for the day, the run-time for each irrigation valve, tells each controller when to come on, and receives a printable operation log from each controller the following day.

Using a daily ET figure and modifying the run times of each valve has resulted in a tremendous of savings of water. The Department's two year average domestic metered water consumption has dropped 15.47% since the conversion to central control. It is estimated the savings in non-treated irrigation water use has dropped by the same 15.47%.

While there are numerous labor savings and aesthetic benefits to the central system the saving of our precious water resources is overriding and most important as we look to the future.