A G E N D A

WORK SESSION OF THE CITY COUNCIL OF THE CITY OF COTTONWOOD, ARIZONA, TO BE HELD AUGUST 14, 2012, AT 6 P.M., AT THE COTTONWOOD COUNCIL CHAMBERS BUILDING LOCATED AT 826 NORTH MAIN STREET, COTTONWOOD, ARIZONA.

I. CALL TO ORDER

II. ROLL CALL

III. ITEMS FOR DISCUSSION, CONSIDERATION, AND POSSIBLE DIRECTION TO STAFF:

Comments regarding items listed on the agenda are limited to a 5 minute time period per speaker.

1. PROPOSED AMENDMENTS TO THE ZONING ORDINANCE BY ADDING NEW SECTIONS FOR HILLSIDE AND WASH DEVELOPMENT STANDARDS.

2. RELOCATION OF THE COTTONWOOD DOG PARK FACILITY.

3. EXPANSION OF THE OLD TOWN HOLIDAY LIGHT PROGRAM AND REQUEST FOR ADDITIONAL FUNDS FOR THE PROGRAM FROM THE COUNCIL'S CONTINGENCY FUND.

IV. ADJOURNMENT

Pursuant to A.R.S. § 38-431.03.(A) the Council may vote to go into executive session on any agenda item pursuant to A.R.S. § 38-431.03.(A)(3) Discussion or consultation for legal advice with the attorney or attorneys of the public body.

The Cottonwood Council Chambers is accessible to the disabled in accordance with Federal “504” and “ADA” laws. Those with needs for special typeface print or hearing devices may request these from the City Clerk (TDD 634-5526.) All requests must be made 24 hours prior to the meeting.

City of Cottonwood, Arizona
City Council Agenda Communication

Print

Meeting Date:	August 14, 2012
Subject:	Hillside and Wash Development Standards
Department:	Development Services
From:	Charlie Scully, Planner

REQUESTED ACTION

Discussion and direction to staff regarding proposed amendments to the zoning ordinance adding new sections for Hillside and Wash Development Standards.

SUGGESTED MOTION

If the Council desires to approve this item the suggested motion is: No action required.

BACKGROUND

In the past, builders generally could avoid properties with steep slopes because there were enough other properties available that were easier to develop. The grading and engineering required to develop on steep slopes was not considered cost-effective. As the cost of land has decreased, it has become more cost-effective for builders to look at previously less desirable properties. The question is, how do you allow such development in a fair manner without completely removing the distinctive landscape features which define the community. Many cities, towns and counties in Arizona have adopted Hillside Development Standards which allow development to occur but place some restrictions on the steepest slopes and further define standards regarding the details of how such sites are developed. The purpose is to provide a balanced approach which benefits everyone in the long run.

There are two major approaches to consider for hillside development standards:
1. Design-based standards: If design standards were applied without the large scale topographic analysis, some of the effects of hillside development could be softened but it would be limited in scope. Design standards deal with the manner in which cuts and fills are applied, the steepness of roads and driveways and similar effects that result in visual impacts. Design standards can be applied separately or together with the more intensive method which requires slope analysis.

2. Development-based standards: If the intent is to protect landscape-scale features, then the typical approach is to require a slope analysis process and to set formulas for development based on percentage categories. This approach requires more up front effort in developing a topographic analysis and may require more thought in the design process but formulas can include bonus features to support this process. Summary of Issues to be considered for Hillside

Development Standards:
Introduction: Applicability Subdivision Standards General Development Standards Procedures and Criteria: Topographic survey Maximum Development Area Design Standards: Mass Grading Standards o Retaining walls Street Design Density Bonus or Transfer (through PAD Zoning and Subdivision platting) If the number of units is reduced on steep hillsides, a method can also be defined to allow the transfer of development rights to some other less steep part of a property. The practical result of such procedures could be to require larger lots for detached single-family residential on steep hillsides but allow townhouses, apartments or smaller lot clustered development on some other portion of a development site. This method could guide a rezoning proposal through the PAD zoning process and it could be used for design of subdivisions on properties with steep slopes. A Bonus method would allow proportionately more units for clustered development than for single-unit detached residential.

JUSTIFICATION/BENEFITS/ISSUES

COST/FUNDING SOURCE

N/A

ATTACHMENTS:

Name:	Description:	Type:
Hillside___Wash_Development_Ordinance.doc	undefined	Backup Material

SECTION 309. HILLSIDE DEVELOPMENT STANDARDS

A. PURPOSE.

The purpose of this section is to establish regulations for development of land with steep slopes and hillsides so as to preserve important aspects of the community character while allowing reasonable opportunities for development. Hillside development standards are intended to minimize possible loss of life and property, to protect watersheds and natural waterways, to minimize soil erosion, to protect public infrastructure investments and to encourage the preservation of community character by retaining natural topographic features and minimizing scarring from hillside construction.

B. APPLICABILITY.

The regulations of this Section shall apply to all lots or parcels having a natural slope of twenty percent (20%) or greater. This slope is calculated using a minimum run of one hundred feet (100') with a rise greater than twenty feet (20') over that one hundred foot (100') run. Where the standards of this section are in conflict with other provisions of this Code, the more restrictive shall apply. No grading, cutting, filling, excavating, stockpiling or other site earthwork shall be commenced without first obtaining all necessary and required permits and approvals from the City of Cottonwood or applicable agencies, including Grading Permits, Stormwater Permits and approval of required development applications.

C. EXCEPTIONS.

This section shall not apply to the following activities:

1. Single-family residential development on existing lots with slopes less than 20%. This exception shall not apply to planned development or new subdivisions.

2. Clearing and thinning of vegetation for fire control as approved by the Fire Chief, Building Official or other applicable City official.

D. DEFINITIONS.

1. BACKSLOPE – The excavated slope remaining on the uphill portion of a cut section that provides a transition from the natural hillside to the flat portion of a building site or roadbed.

2. CONSTRUCTION ENVELOPE - A specific area defined by the sum of the maximum allowable disturbed area plus the maximum coverage allowed for the lot pr parcel.

3. CUT - The land surface which is shaped through the removal of soil, rock, or other materials.

3. DISTURBED AREA - That area of natural ground that has been or is proposed to be altered through grading, cut and fill, removal of natural vegetation, placement of material, trenching, or by any means that causes a change in the undisturbed natural surface of the land or natural vegetation.

4. FILL - The deposit or relocation of soil, rock, or other materials on the site.

5. FINISHED GRADE - The final grade and elevation of the ground surface after grading is completed.

6. GRADE - The slope of a hillside measured as a ratio of horizontal distance or run to vertical distance or rise (measured as percentage.)

7. GRADING - Any excavating, or filling or combination thereof, including the conditions resulting from any excavation or fill.

8. HILLSIDE DEVELOPMENT AREA - Building areas, other than sloped areas within washes and rivers, with a building site slope of twenty percent (20%) or greater, measured as a vertical rise of twenty (20) feet in a horizontal distance of one hundred (100) feet.

9. NATURAL GRADE - The grade and elevation of the ground surface in its natural undisturbed state.

10. NATURAL OPEN SPACE - Areas that are essentially unimproved and left in a natural state without developed structures, roads or similar development but that may contain recreational trails, perimeter fencing or similar minor features.

11. PREVAILING GRADE - The average steepness of a hillside over its entire length.

12. RETAINING WALL - A wall used to retain material but not to support or to provide a foundation or wall for a building.

13. SITE DISTURBANCE ACTIVITY - Any action which results in a cutting of the natural soil grade, creation of an un-natural soil fill or movement of a significant natural landscape feature. Such activity may include, but not be limited to the following activities: digging, trenching, filling, drilling, grading or clearing.

14. SLOPE CATEGORY STUDY - A detailed study of the topography and slope of a development site, parcel or property. The study shall include a detailed graphic showing all slope areas on the site utilizing the methodologies established in this Ordinance and shall be composed of graphic, numerical and narrative information.

15. SPILL SLOPE - Earth or other material that is pushed or allowed to fall, flow or run down a slope as a result of excavation activities or natural process of erosion so as to change the natural appearance and topography of the site.

E. APPLICATION REQUIREMENTS.

1. An overall excavation, grading and drainage plan shall be prepared in accordance with sound professional engineering practices and to address minimum standards adopted by the City. Said plans shall be prepared and certified by a professional engineer registered in the State of Arizona. If any drainage structures or culverts are involved, it will be necessary to include calculations for peak flows for a 100 year storm to establish appropriate drainage facilities, cross-sections and details. Where feasible, storm water diverted from its original drainage pattern shall be returned to its natural course before leaving the property.

2. Hillside Development Site Plan. Detailed development site plans and landscape plans shall be submitted with each hillside development application and shall include, but not be limited to, the following:

   a. Submit site plan on 24" by 36" sheet. Site plan must be submitted with a topographic survey prepared by a civil engineer or registered land surveyor. Scale of the site plan shall be not less than 1"= 20'-0".

   b. Show topographic contours at two (2) foot intervals. Five (5) intervals may be allowed for very steep slopes if approved by the City Engineer. Indicate existing contours with dashed lines.

   c. This map shall show limits of excavation and fill, slope of cut and fill, and total cubic yards of excavation and fill for the building site, roads, and driveways. Show the location, length and height of retaining walls, fences and other attachments;

   d. For disturbed (or graded) areas, including removal of natural vegetation, show the proposed method of final treatment, including riprap, concrete, groundcover, or vegetative coverings.

   e. Show how drainage is altered, and if so, how it is redirected to original channel and show that the requirements regarding storm water runoff and drainage have been met. Show the location and grade of all drainage channels, swales, drain pipes, culverts, and similar drainage features. Indicate flood zones on site plan with grade or elevation of each level.

   f. Show cross sections at two (2) or more locations perpendicular to the contours through each building or structure giving percentage of slope at each, and showing exact heights of structures at each existing contour.. Location of the cross-sections shall be clearly shown on the topographic map.

   g. For proposed driveways, indicate total average grade from lowest point to highest and show grade of steepest portions of driveway within fifty (50) foot sections.

   h. Show location of all proposed utility lines, or septic tank or sewage disposal areas.

i. Provide address or property location information, property dimensions and name, address, telephone number and contact information for applicants, property owners and preparer of application materials.

4. Data Table. Provide a table on the plan which provides the following information:

   a. Gross area of lot shown in square feet.

   b. Area of lot that is hillside in square feet. Indicate slope category. If separate areas are shown, break out the areas by size in square feet and slope category.

   c. Area of hillside on lot that has been previously disturbed in square feet, if applicable.

   d. Area of hillside on lot that is proposed to be disturbed shown in square feet. Indicate separate areas, if applicable.

5. The Community Development Director, or designee, may require an accurate three dimensional rendering; showing the existing and proposed finished appearance of the site. A computer generated model in a three dimensional format is acceptable.

6. Prior to the commencement of any construction or development activity on the hillside site, including clearing, grading, excavating or movement of any material, all applicable required plans and approvals shall be issued by the City.

F. SLOPE CALCULATION ANALYSIS.

1. All applications for development shall include a Slope Calculation Analysis when portions of the property contain slopes 20% or greater, as defined by this Ordinance.

2. The information submitted shall clearly indicate the extent and nature of the work proposed, including the area of disturbance, the estimated quantity of cut and fill, and other information as required to review the proposed activity.

3. Applicants may prepare a Slope Calculation Analysis utilizing a methodology differing from those outlined in this Section. Applicants seeking to utilize an alternative methodology shall provide both a written explanation of the proposed alternative methodology and a graphical example of its use.

4. A Slope Calculation Map shall be produced for the review slope categories as applies to the hillside development standards. The slope map shall contain information necessary to determine compliance with this Section. To determine the location and extent of slope categories, carry out one of the following procedures:

a. Manual Slope Calculation Method:

1) Utilize a topographic map at a scale of twenty (20) feet or less to the inch and with contours shown at two (2) foot intervals. All contour lines shall be extended onto adjacent properties to a distance that establishes the overall slope of the land but in no case shall they be extended less than twenty (20) feet onto the adjacent properties.

2) The slope category shall commence at the midpoint of the one hundred (100) foot horizontal dimensions used to determine the slope. The one hundred (100) foot slope determination lines shall be located perpendicular to the site or property contour bands. Those properties containing multiple slope planes should provide slope information for all such planes.

3) To determine those locations where slopes of twenty percent (20%), thirty percent (30%), and forty percent (40%) begin by the application of one hundred (100) foot straight lines that fall within each category. The one hundred (100) foot slope determination lines shall be extended onto adjacent properties to a distance that establishes the overall slope of the land but in no case shall they be extended less than twenty (20) feet onto the adjacent properties.

4) Connect the midpoints of each series of one hundred (100) foot lines of the same slope category to establish the limits of that slope category.

5) Measure the areas resulting between each series of straight lines to determine the areas in each slope category.

b. Computer Generated Slope Calculation Method:

1) Utilize digital topographic information with contours shown at two (2) foot intervals.

2) Utilizing a slope generating software application, slope categories shall be determined utilizing the slope categories identified in this Ordinance.

3) Computer generated slope analyses shall be prepared utilizing the following modeling parameters:

(a) Maximum five (5) foot slope contour intervals for slopes more than thirty percent (30%);

(b) The slope analysis shall utilize the above noted slope contour intervals through the modeling basis of grid evaluation to determine slope facets or contours; and,

(c) The analysis shall utilize a twenty-five (25) foot grid system.

4) All data generated through the use of a computer generated slope determination shall be presented in both chart and graphic formats. The presentation of all graphic slope information shall be presented in a clear and easily understandable format.

5) The final map shall be plotted at a maximum scale of 1" = 200' and submitted to the Community Development Director or designee for review. If the Community Development Director or designee finds the analysis acceptable, the final slope determination map shall be approved.

6) The Community Development Director or designee may reject the analysis and require correction(s) to the digitized slope category lines to more accurately reflect the generalized slope conditions of the property or other revisions necessary to ensure compliance with this Section.

G. SLOPE DEVELOPMENT.

1. Maximum Site Disturbance: Maximum site disturbance), as used in this Section, shall include all grading, excavation and fill area for the development of the property but shall not include any public or private street or the building coverage in the calculation.

Slope Category	Maximum Allowable Disturbance Area as per Slope Category Map
0% to 19.9%	As per underlying Zoning.
20% to 29.9%	30%
30% - 39.9%	50%
40% & >	No Disturbance, except as permitted by this Ordinance.

2. Residential Density: The maximum density for residential development within specified slope category areas shall be determined by the following:

a. For any portion of land containing slopes below 20%, the maximum density is determined by dividing the gross area of the tract of land below the 20% slope line by the minimum lot size specified in the underlying zoning district(s).

b. For any portion of land containing slopes from 20% up to 29.9%, the maximum density is 0.70 of the density determined by dividing the gross area of the tract of land between the 20% and 29.9% slope lines by the minimum lot size specified in the underlying zoning district (s).

c. For any portion of land containing slopes from 30% up to 39.9%, the maximum density is 0.50 of the density determined by dividing the gross area of the tract of land between the 30% and 39.9%, slope lines by the minimum lot size specified in the underlying zoning district(s).

d. For any portion of land containing slopes 40% and greater, the maximum density is determined as 0.25 of the density determined by dividing the gross area of the tract of land at or above the 40% slope line by the minimum lot size specified in the underlying zoning district(s).

3. Hillside Residential Density Bonus: For properties where the maximum density for residential development is limited as established in this Section for development in slope category areas at or above 20%, the net difference with a potential density bonus increase in the allowable number of dwelling units may be transferred to other portions of the same or contiguous development property where such areas are shown as below the 20% slope category level. For transfer of residential density to zoning districts other than PAD Zone, development shall otherwise meet all standards of this Ordinance and shall not exceed more than 125% of the density otherwise allowed in that Zoning District. Transfer of residential density for projects with PAD Zoning shall be subject to the standard review and criteria for Planned Area Development as determined through the Master Development Plan.

4. All such development qualified for transfer of residential density shall be subject to standards as specified in this Ordinance and the following:

    a. In addition to other residential use types allowable in the underlying zoning district, transferred density rights may be developed as detached single-family residential units or as attached residential units with townhouse or clustered type design.

    b. Proposed clustered unit developments located within a 20% or greater slope category shall be subject to the processing of a Planned Area Development (PAD) application and approval at the sole discretion of the City Council.

    c. Aspects for consideration of a density transfer design may include but are not limited to:

        1) Locations and distribution of any attached or clustered housing.

        2) The condition of buffering or separation between proposed housing and the abutting properties.

        3) The overall variety of housing types, sizes, lot sizes.

        4) The amount and quality of natural open space or usable landscaped areas that are contained within the proposed transfer area.

    d. For all areas of the lot or parcel with less than a 20 percent slope, 100 percent site disturbance may occur where densities are being transferred from higher slope areas.

4. The following criteria shall be applied for review of proposed clustered development:

    a. Minimizes the disturbance to the terrain, avoiding cuts or fills unless they are necessary.

    b. Preserves and incorporates natural features and vegetation, preserves significant large trees or landscape specimens, preserves rock formations.

c. Mitigates visual impacts by keeping structures below ridgelines, stepping structures with the slope, and minimizing the height of structures.

d. Building and structure design is compatible with hillside characteristics using natural materials and colors, and variation with roof and wall components;

H. HILLSIDE DESIGN CRITERIA.

1. Mass Grading Standards. Leveling of large development sites through mass grading shall be discouraged even for areas with less the 20% slope. Careful design of site grading to allow stepping of areas within larger development sites is preferred so as to preserve natural slopes, vegetation and similar features.

2. Construction Envelope. All lots 20,000 square feet or more in net area shall establish a construction envelope equal to the combined area of the maximum disturbed area and maximum lot coverage as described in this Section.

3. Spill Slopes. Spill slopes greater in depth than five (5) feet shall be prohibited for development sites, driveways and streets. All such surplus material shall be removed from the site or disposed of on-site as permitted by this Ordinance.

4. Removal or disposal of excess material. All excavated material shall be removed from lots and roadways or contained behind retaining walls or landscaped so that the slopes of any fill material will not be visible.

5. Cuts and Fills. Stabilization is required for all cut and fill slopes of five (5) feet or greater in elevation. To reduce visual impacts of cut and fill slopes they should be rounded or tapered where they meet natural grade so that they blend with the natural slope.

   a. Building pad: The maximum height of any cut or fill used to establish a building site shall not exceed twelve (12) feet. For cuts greater in height stepping shall be required with at least four (4) foot steps to allow landscaping.

   b. Street: The maximum height of any cut or fill used to establish a road shall not exceed 12 feet. For cuts greater in height stepping shall be required with at least four (4) foot steps to allow landscaping. All building sites, driveways and roadway cut and fill slopes shall be re-vegetated with native plant material.

   c. Driveway: Any driveway cut greater than eight (8) feet in depth shall not have a length greater than one hundred (100) feet; and the maximum height of any cut or fill used to establish a driveway shall not exceed twelve (12) feet.

   d. Grade of backslope, cuts and fills: The grade for resulting slopes shall be a maximum 2:1, or greater if determined necessary by engineering analysis to ensure a sustainable slope. A combination of retaining walls and slopes may also be considered.

e. Partial bench construction: Where a grading plan proposes a combination of cuts and fills to create a level area for a building, road, driveway or development site due to constraints of the property, a detailed treatment plan shall be required for the cut and fill sections to ensure adequate compaction of the fill material and a minimum 2:1 backslope grade so as to maintain a stable slope. Any fill material shall be carefully blended with the prevailing natural grade of the hillside and landscaping shall be provided as necessary to minimize the visual effects of any spill slope.

f. Setbacks: Both the top of cut slope and toe of slope shall be setback at least 10 feet from any property line or greater if required by building codes. Exceptions may be considered where the existing topography or drainage patterns are such that strict adherence to this standard would result in a less desirable condition for abutting properties. In such cases a recorded slope or drainage easement shall be provided for the applicable portions of the abutting property.

g. Alternative cut and fill limitations and methods to mitigate the visual impact of cut and spill slopes such as terracing, use of retaining walls and re-vegetation of disturbed areas may be submitted based on a finding that the proposed alternative limitations and methods meet the intent of this Section to reduce the visual impact of cut and spill slopes and are otherwise in compliance with this Ordinance. All such alternative proposals shall be subject to Design Review approval.

6. Retaining walls: The intent of retaining wall standards is to reduce the visual impact of retaining methods used on hillside developments. Specific criteria for design include the following:

a. Fill slopes greater than two (2) feet in depth may be contained by a retaining wall as provided by this Ordinance. Retaining walls may be used to retain fill where slopes cannot be stabilized by the application of boulders, vegetation or the underlying native rock.

b. Residential retaining walls shall not exceed six (6) feet in height; non-residential retaining walls shall not exceed eight (8) feet in height. Where additional height is required, a series of stepped retaining walls may be used where such walls are offset at least four (4) feet horizontally. The area between stepped retaining walls shall be improved with landscaping, as per Section 407. Landscaping Requirements.

c. Decorative view fences, not exceeding 6 (six) feet in height above the highest part of adjacent natural grade may be added to a retaining wall. View fences may include wrought iron, wood picket or a combination of wrought iron and masonry columns but shall not include chain link for such applications.

d. The location and layout of retaining walls shall be designed to compliment the shape of the natural terrain to the greatest extent possible through the use of stepped or offset sections both in elevation and plan view. Retaining walls shall be designed to preserve attractive areas of existing desert vegetation where possible.

e. If retaining walls are constructed of block or finished with stucco, they should be colored to blend with surrounding landscape or to be compatible with the development theme of the project. Rock facing on masonry walls is encouraged and the use of rock walls comprised of native materials where structurally appropriate is also encouraged.

5. Driveways: The design of driveways located within development projects shall meet the following standards:

   a. Driveways in hillside development areas (20% or greater slopes) shall be limited to one per residence. A driveway may be used to serve more than one residence where in compliance with applicable codes.

   b. Driveways with 10% grade or greater shall be paved with asphalt, concrete, pavers or a comparable hardened surface so as to stabilize slopes and minimize erosion and sedimentation.

   c. Driveways with 15% or greater grade shall be concrete with appropriate surface treatment to provide adequate friction for vehicles.

   d. Driveways with 10% grade or greater shall have a 20 foot minimum landing area at intersection with maximum 6% grade so as to allow safe transition to street.

   e. Where a driveway crosses a wash or drainageway, it shall not impede or adversely alter drainage. Wash crossings shall be stabilized to minimize maintenance. Where necessary to accommodate regular run-off or flooding, appropriately sized and designed culverts or bridging shall be required. For low-flow or local drainage swales, concrete aprons on each side of the driveway may be approved to accommodate the cross flow.

   f. Drainage culverts: Where driveways cross drainage ditches and channels beside the roadway, culvert pipes shall be sized to meet all applicable engineering requirements but in no case shall be less than 12" in size for pipes up to 16 feet in length and minimum 24" for pipes greater than 16 feet in length. A uniform size of culvert pipe shall be established for similar drainage crossings to lots accessed across the same channel along the same roadway.

   g. The applicant shall provide engineered plans, prepared by a registered civil engineer, licensed in the State of Arizona, for all driveways that have grades more than ten (10) percent to ensure compliance with the design criteria.

6. Street Design: Both public and private streets proposed for new development shall conform to the following standards for hillside development:

   a. Street grade shall be designed to take advantage of the natural topography of the landscape through such techniques as following the natural contours across hillsides.

b. All cut and fill slopes associated with new streets shall be within the roadway right-of-way or roadway easement. Slope maintenance easements for roadway cuts and fills shall be required where such disturbance extends onto private property.

c. Street grades shall typically not exceed 6%, except where there are exceptional circumstances of the natural topography that would otherwise limit locating the new street in a conforming manner then individual sections up to 10% percent grade may be considered for a maximum length of five-hundred (500) feet. Exceptions for new streets may be approved by the City Engineer if there are no reasonable alternatives and the proposed street is in compliance with all other applicable codes and ordinances and is approved by fire, police and public safety agencies for emergency access.

SECTION 309. WASH AND FLOODPLAIN DEVELOPMENT STANDARDS

A. PURPOSE.

This Section is intended to supplement the Design Review requirements of this Ordinance and to protect washes and drainageways from alteration in order to uphold their primary function as stormwater facilities. All drainage structures shall be designed by an Arizona licensed Professional Engineer.

B. APPLICABILITY.

All development, including fences and walls, proposed in wash corridors or drainageways shall be subject to the requirements of this Section. Developments within FEMA-delineated floodplain boundaries shall adhere to the Floodplain Regulations of the City of Cottonwood.

C. DEFINITIONS.

1. BANK – The portion of the channel cross section that restricts lateral movement of water. A distinct break in slope from the channel bottom.

2. DENTENTION BASIN – A stormwater management structure that temporarily stores stormwater runoff and allows a slow release so as to control downstream flooding or erosion.

3. GABIONS – A watercourse stabilization technique that uses wire mesh cages filled with rock and used to protect channel banks and other sloping areas from erosion.

4. GROUNDWATER – The water under the surface of the earth regardless of the geologic structure in which it is standing or moving. Groundwater does not include water flowing in underground streams with ascertainable beds and banks.

5. RETENTION – A stormwater management structure that captures stormwater runoff and stores it until it soaks into the ground or evaporates. For purposes of this ordinance retention shall include detaining or retaining.

6. RIPARIAN AREA - A geographically delineated area with distinct resource values, that is characterized by plant species that depend on having roots in the water table or its capillary zone and that occurs within or adjacent to a natural perennial or intermittent stream channel or within or adjacent to a lake, pond or marsh bed maintained primarily by natural water sources. Riparian area does not include areas in or adjacent to ephemeral stream channels, artificially created stockponds, man-made storage reservoirs constructed primarily for conservation or regulatory storage, municipal and industrial ponds or man-made water transportation, distribution, off-stream storage and collection systems.

7. RIPRAP – A technique which uses generally large, angular rock used to armor the banks and/or bed of a watercourse or other sloped hillsides so as to protect it from erosion.

8. SURFACE WATER - The waters of all sources, flowing in streams, canyons, ravines or other natural channels, or in definite underground channels, whether perennial or intermittent, floodwater, wastewater or surplus water, and of lakes, ponds and springs on the surface.

9. WATERCOURSE – The main body or a portion or reach of any lake, river, creek, stream, wash, arroyo, channel or other body of water. For Arizona, watercourse does not include a man-made water conveyance system, except to the extent that the system encompasses lands that were part of a natural watercourse as of February 14, 1912.

D. DRAINAGE ANALYSIS.

1. Where drainage improvements, including retention or detention basins, have not yet been constructed for a site, proposals for new development shall include a drainage analysis of pre- and post-development flows, subject to the following standards:

   a. An Arizona-registered engineer shall design and certify drainage improvements.

   b. Adequate provision for short- and long-term ownership, maintenance and operation of a storm water management system shall be required.

   c. Where water velocities may reasonably be expected to cause erosion problems, satisfactory means shall be provided to prevent such erosion, including concrete head walls and wing walls on culverts.

E. DRAINAGE DESIGN CRITERIA.

1. Construction within floodplains shall be in compliance with applicable Zoning Ordinance and Building Code regulations.

2. Floodplain Residential Density Transfer Bonus. For sites of one (1) acre in size or greater, where the developer agrees to restrict all development within a designated one-hundred year floodplain area by recording of a conservation easement over the entire floodplain area, there shall be allowed a transfer of residential density rights to the area outside the floodplain area at a value equal to 1.25 times the underlying density of the area maintained in natural state in addition to the allowable density within the non-floodplain area. Such density transfer shall be subject to the criteria as established in this Ordinance for Hillside Residential Density Transfer.

3. Washes and drainage channels which are altered through grading or engineered activity shall maintain a natural character to the greatest extent possible through the use of native landscaping, native rock and preservation of existing natural features.

4. Natural washes conveying flows from adjacent properties shall remain separate from retention basins storing on-site drainage.

5. Natural drainage patterns shall be maintained onto and off development sites, as determined by the City Engineer, in such a manner that existing vegetation along natural washes continues to receive runoff water.

6. Retained washes and new drainage channels shall maintain a "natural" character. Requirements include landscaping with native rock and plant materials, contouring and preservation of existing natural features.

7. To preserve riparian zones, undisturbed areas shall extend, as determined by the City, beyond the banks of significant washes, including those regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act.

8. Engineered Channelization. Channelization of washes or drainages through the use of mechanical stabilization is strongly discouraged. A preferred method is armoring with dry laid native or river-washed rock of a variety of shapes and sizes. This provides a more natural appearance that is more visually appealing and encourages the groundwater recharge process. The uniform and even placement of rocks and boulders is discouraged. Instead, emphasis should be placed on laying rocks in naturally shaped areas where the drainages are most prone to erosion, such as on the outside of curves. Riparian tree species should also be planted along drainage edges for emphasis and interest.

9. Minimize or Prohibit Development in Drainageways. In instances where a drainageway exists but there is insufficient area on the site to allow residential use, development shall be minimized or prohibited where one of the following exists:

   a. Site planning and engineering techniques cannot reasonably mitigate potential hazards to public health, safety and welfare; or

   b. Alteration will limit or reduce the primary function as storm water facilities in a manner that cannot be reasonably mitigated.

A. SUPPLEMENTARY DRAINAGE DESIGN CRITERIA.

1. Drainage improvements shall be designed in accordance with the following standards:

   a. An Arizona-registered engineer shall design and certify drainage improvements.

   b. Adequate provision for short- and long-term ownership, maintenance and operation of the storm water management system shall be required.

   c. Where water velocities may reasonably be expected to cause erosion problems, satisfactory means shall be provided to prevent such erosion, including concrete head walls and wing walls on culverts.

2. Detention Basin Requirements. A detention basin shall be provided where necessary to remove sediment from storm water runoff and to temper runoff quantity and rate of flow so as to limit post development flows to predevelopment flow rates. Such basins shall be capable of handling the calculated difference between historic flows and the anticipated post-development 100-year frequency storms for maximum period of intensity within the entire project boundary in which the proposed structure is to be located.

3. Detention Basin Design Standards: Detention basins shall be designed as visually attractive and natural looking so as to blend into the overall site plan. For purposes of this ordinance, on-site detention basins and retention basins shall be treated in the same manner. The following standards shall apply:

    a. Detention basins shall be designed with irregular shapes and contours as an integrated component of the natural and developed landscape and shall not take on the appearance of a pit or ditch.

    b. Detention areas shall be landscaped to serve as areas of visual interest and to soften their appearance. Landscape plant material shall be located in various areas throughout the basin, including side slopes, basin bottoms and areas surrounding the top. Drought-tolerant, water conserving plants shall be used. The landscape materials for the retention area shall be consistent with the overall landscape design of the project.

    c. The use of multiple, small detention areas located throughout the site allows the most advantageous use of rainwater harvesting in the landscape design. Multiple basin design may be engineered either as an interconnected system with gravity fed runoff or as decentralized basins provided the overall system meets all engineering requirements. For sites with limited area for multiple basins and where the design standards are otherwise met, one or more larger basins may be approved.

    d. Basins shall be designed to ensure that the depth of water at the high water level shall not exceed thirty-six (36) inches at any point.

    e. Provide a minimum three (3) foot transition area from top of slope where retention basin is adjacent to right-of-way and/or sidewalks; A minimum four-to-one (4:1) slope is recommended for the interior portion of the basin.

    f. A maximum of twenty-five percent (25%) of the basin perimeter (measured at the high waterline) may be comprised of retaining walls. The maximum height of retaining walls shall be eighteen (18) inches.

g. The slopes of detention areas shall be gentle and rounded, but they may incorporate the use of rocks and boulders to increase interest. Detention basins that incorporate retaining walls shall utilize catch basins and pipes to collect and direct water to the bottom of the basins so as to avoid spillover at walls. Alternate methods to drain water around retaining walls may include the use of rip rap. The use of concrete swales and channels should be avoided in retention basins where visible from public streets, parking lots and developed areas. Spillways of natural rock are preferred.

h. Where detention basins occur along streets, provide landscaped berms along at least twenty-five percent (25%) of basin frontage. Berms are to be four-to-one (4:1) (horizontal to vertical) maximum slope and at least two (2) feet in height. No portion of the detention basin structure, including berms or landscaping shall obstruct a sight visibility triangle. Berms shall not completely obstruct run-off from streets and surrounding areas into the basin.

i. Existing natural drainage areas shall be maintained in undisturbed form where possible. The collection, storage, and reuse of water from a detention basin for onsite irrigation of landscape areas through rainwater harvesting design techniques shall be encouraged.

4. Detention Basin Maintenance. Detention basins shall be maintained by the property owner and/or tenants in accordance with approved plans. It shall also be the responsibility of the associated development to maintain any retention areas approved within adjacent landscaped right-of-way areas.

City of Cottonwood, Arizona
City Council Agenda Communication

Meeting Date:	August 14, 2012
Subject:	Dog Park
Department:	Public Works
From:	Morgan Scott, Development Services Operations Manager

REQUESTED ACTION
Consider relocating the City Dog Park to a new location.
No Suggested Action.

BACKGROUND
For the last several years the City of Cottonwood has operated and maintained a dog park at Riverfront Park. The facility, although popular among dog owners, has caused some concerns among nearby property owners who have been affected by the noise created from the dog park. Also, the portion of Riverfront Park where the dog park is currently located is planned for development of future soccer fields. City staff has identified three other locations that council may consider for relocation of the dog park. These locations are:

1) Near the Humane Society on Mingus Ave.
2) The north clear zone of the Cottonwood Airport.
3) The reclaimed water pond on Mingus Ave.

An aerial image of each facility is attached along with along with a list of features and concerns for each facility.

JUSTIFICATION/BENEFITS/ISSUES
See attachments for benefits/issues of each site

COST/FUNDING SOURCE
General Fund

ATTACHMENTS
Maps

Location: Humane Society

Benefits:

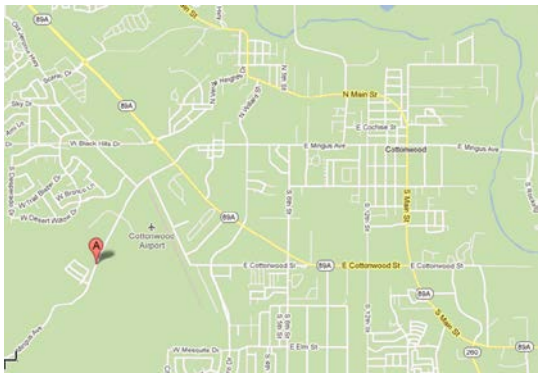
- Easily Accessible
- May be monitored by nearby transfer station attendant
- 450′ from the nearest residence
- Located near humane society where noise is not an issue
- Area: approximately 100′x200′ (approximately 0.45 acres)
    - Current dog park area: 200′x300′ (approximately 1.38 acres)

Concerns:

- Some uneven Terrain
- Reclaimed water within 200′

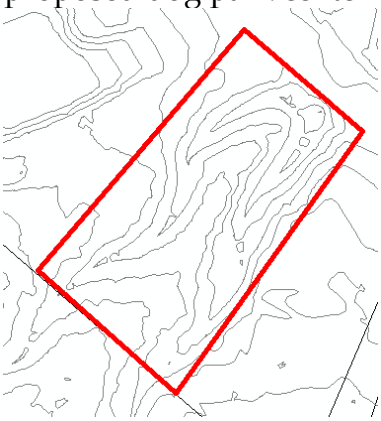
Picture taken from transfer station driveway looking west, new Humane Society building in the rear, Mingus Mountain in the background.

Location: Humane Society (Cont.)



Map: Red balloon labeled "A" shows approximate location.


Aerial image of the site. Mingus Avenue on the right, old Humane Society Building on the right, Public Works/ Wastewater treatment plan on the top, transfer station on the left, proposed dog park center (outlined in red).


2' contours of the proposed site, shows two washes running through the site. Proposed site outlined in red. Site falls ~12' over 100' length.

Additional Costs:

1) Fence: 1,010' of fence @ $12/foot = $12,120
2) 10 space gravel parking lot = $1,000 (cost estimate assumes work is conducted by City crews). Parking lot will remove approximately 0.1 acres from the site.
3) Irrigation: $3,600
4) TOTAL EST. COST: $16,720
    a. Price per acre: $37,155.56

Location: North Clear Zone of Cottonwood Airport

Benefits:

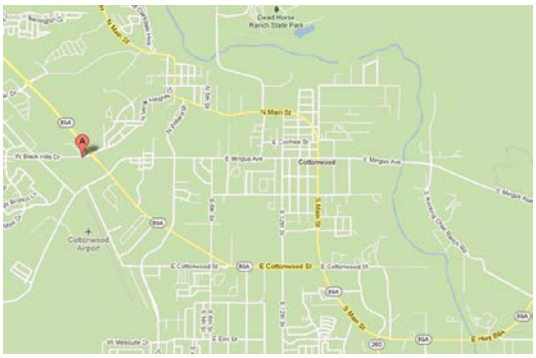
- Easily Accessible from Black Hills Drive
- Relatively flat
- Space is not currently in use, little impact on airport
- Reclaimed water already on site
- Over 800' from nearest Residence
- Area: approximately 1.4 acres, more space available
    - Current dog park area: 200'x300' (approximately 1.38 acres)

Concerns:

- Possible future airport expansion may impact site

Picture taken from Black Hills Drive just west of Black Hills Autobody (to the left of picture), lift station five and airport in the background.

Location: North Clear Zone of Cottonwood Airport (Cont.)



Map: Red balloon labeled "A" shows approximate location.


Aerial image of the site: Proposed site outlined in red, Black Hills Roads parallels the site at the top of the picture, Black Hills Autobody is to the right of the site and the airport clear zone is on below and to the left of the picture.

Image taken from the Cottonwood Airport Master Plan, showing future ultimate locations of the Runway protection Zone (blue and white line). The second image shows the runway protection zone (RPZ) should the runway be extended in the future.

Additional Costs:

1) Fence: 1,050' of fence @ $12/foot = $12,600
2) 10 space gravel parking lot = $1,000 (cost estimate assumes work is conducted by City crews). Parking lot will remove approximately 0.1 acres from the site.
3) Irrigation: $0.00 (irrigation already in place)
4) TOTAL EST. COST: $13,600
    a. Price per acre: $9,714.29

Location: Reclaimed Water Pond

Benefits:

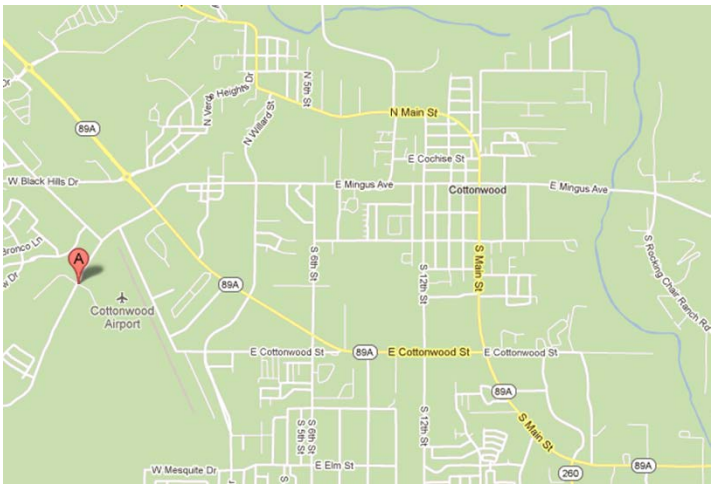
- Easily Accessible
- Relatively flat
- Space is not currently in use
- Reclaimed water already on site
- Large distance from any residence
- Area: approximately 1.15 acres
    - Current dog park area: 200'x300' (approximately 1.38 acres)

Concerns:

- Land is currently leased and would need to be purchased/leased by the City

Picture taken from Fire Training Center (located on Mingus Avenue) looking southeast: Fire training center temporary parking on the left, Mingus Avenue in the front, reclaimed water pond hill in the rear.

Location: Reclaimed Water Pond (Cont.)



Map: Red balloon labeled "A" shows approximate location.


Aerial image of the site: Proposed site outlined in red, Mingus Avenue in center, Fire Training Center left, Happy Jack Storage Units on the right.

Additional Costs:

1) Fence: 900' of fence @ $12/foot = $10,800
2) 10 space gravel parking lot = $1,000 (cost estimate assumes work is conducted by City crews). Parking lot will remove approximately 0.1 acres from the site.
3) Irrigation: $4,100
4) TOTAL EST. COST: $15,900 + cost to purchase/lease property
    a. Price per acre: $13,826.09

City of Cottonwood, Arizona
City Council Agenda Communication

Print

Meeting Date:	August 14, 2012
Subject:	Expansion of the Old Town Holiday Light Program
Department:	City Manager
From:	Doug Bartosh, City Manager

REQUESTED ACTION

Staff is requesting Council direction regarding the expansion of the Old Town Holiday Light Program and the use of Council Contingency Funds to support the program.

SUGGESTED MOTION

If the Council desires to approve this item the suggested motion is: N/A

BACKGROUND

During the last two winter holiday seasons, the City has partnered with Yavapai Broadcasting to create a light display in Old Town with the goal of highlighting the holiday season, providing entertainment for our citizens, and attracting people to Cottonwood and the Old Town area. The additional lighting has proven to be very popular with vistors to Old Town and has proven to be an excellent addition to the annual Chocolate Walk activities.

To date, we have provided decorative lighting for the Civic Center, the City Clerk's Office, and the Council Chambers. This year, we would like to expand the lighting to City Hall, and the two buildings south of City Hall. We would also like to coordinate all the lights into a light show set to music that would run several times per night that would encourage people to come to Cottonwood and specifically Old Town to enjoy the light show. We would also hope that once they come to Cottonwood and Old Town they stop to shop or eat.

The lighting plan would also provide a seating area between Finance and the City Clerk's office so people could comfortably watch the light show. Similar to Dave Kessel's holiday light show in Cornville, we could also collect donations after the show in an effort to support one of our local charities.

JUSTIFICATION/BENEFITS/ISSUES

The holiday season is the biggest shopping season of the year. If the City provides a notable holiday light show, we hope to draw many visitors into Cottonwood from around Northern Arizona to not only see the light show but, also to stay and contiribute to the economy in Cottonwood.

This will be the third year in our efforts to expand the holiday light program. Staff's experience to date has proven that the lights are well received by our residents and visitors and they attract business, not only to Old Town, but, also throughout the City.

COST/FUNDING SOURCE

Staff has budgeted $10,000 in the 2012-13 General Fund budget to expand the holiday light program. In meeting with representatives from Yavapai Broadcasting, they are recommending a larger addition this year to include the lighting of three more city buildings and the programming of all lighting to music, thereby, actually creating a light show to music.

The staff at Yavapai Broadcasting have indicated that to make the desired expansion to the lighing program they are estimating that the total cost will exceed $15,000. They have offered that if the city can provide the $15,000 investment, they will donate any additional funding if required. It is also critical to note that Yavapai Broadcasting provides all of the labor to order, develop, and assist the city staff in placing and programming the lighting at no cost to the city. They have been valuable partners by working with the city to develop this economic development tool that is an attraction for our residents as well.

Staff is requesting the Council's direction in bringing back to a regular Council meeting agenda an item for the approval to use $5,000 in Council Contingency Funding for the holiday light prorgam.

ATTACHMENTS:

Name:	Description:	Type:
Christmas_light_list.pdf	Christmas Lights List	Backup Material

Christmas Done Bright Buildings 1-4

6/6/2012 LOR

	Page	Building #	Scene #	Discription X = local animation control unit	H X W	Animated	Per unit Price	Quantity	Extended	Circuits	Controller
Building # 1			42 FEET	**TREES**							
X	2	1	5SA455L	SANTA SLEIGH WITH 3 DEER (REMOVE RED NOSE)	3-6 X 16	YES	$ 500.00	1	$ 500.00	1	
X	2	1	SPECIAL	TWO ADDITIONAL DEER (ONE WITH RED NOSE)	3-6 X 6	YES	$ 200.00	1	$ 200.00	see above	
X	3	1	CTE78L	TOPPING CHRISTMAS TREE STAR BY ELF	6 X 10-8	YES	$ 600.00	1	$ 600.00	1	
O	4	1	SN625L	SNOWMAN	5-3 X 3	NO	$ 150.00	1	$ 150.00	1	
X	9	1	XD232L	FLASH THE CHRISTMAS DOG	3-9 X 2-5	YES	$ 125.00	1	$ 125.00	1	
O	9	1	FH233L	FLASH'S HOME	4-6 X 3-8	NO	$ 100.00	1	$ 100.00	1	
X	12	1	SG581L	SNOW GLOBE	6-6 X 6-6	YES	$ 450.00	1	$ 450.00	1	
O	30	1	CT200L	SMALL CHRISTMAS TREE	4 X 2	NO	$ 75.00	12	$ 900.00	12	
O	30	1	CT201L	MEDIUM CHRISTMAS TREE	5 X 3	NO	$ 90.00	4	$ 360.00	4	
O	12	1	SF210L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	6	$ 450.00	6	
O	12	1	SF215L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	3	$ 225.00	3	
O	13	1	H5312L	HAPPY HOLIDAYS (find one that is 15' or so)	4 X 6	NO	$ 375.00	1	$ 375.00	2	
										33	3 Units
Building # 2			15 FEET	**ELF**							
O	6	2	EP535L	ELF WITH PRESENT	4 X 2-9	NO	$ 100.00	1	$ 100.00	1	
O	6	2	PK350L	INDIVIDUAL PRESENT	1-10 X 1-6	NO	$ 45.00	4	$ 180.00	4	
O	6	2	PK290L	STACKED PRESENTS (3)	2-9 X 2	NO	$ 45.00	2	$ 90.00	1	
X	6	2	SWB32L	SANTA'S WORKSHOP with ELF LOADING BAG	8-10 X 15	YES	$ 775.00	1	$ 775.00	1	
X	7	2	EDT83L	ELF DECORATING CHRISTMAS TREE	4-6 X 12	YES	$ 425.00	1	$ 425.00	1	
O	12	2	SF210L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	3	$ 225.00	3	
O	12	2	SF215L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	6	$ 450.00	6	
										17	2 Units
Building # 3			10 FEET	**GINGERBREAD**							
O	2	3	SC506L	SANTA CHECKING LIST	4-5 X 3-8	NO	$ 200.00	1	$ 200.00	1	
X	16	3	GB429L	GINGERBREAD ON TRAMPOLINE	8 X 5	YES	$ 450.00	1	$ 450.00	1	
X	16	3	SG314L	GINGERBREAD PLAYING SOCCER	6-1 X 13-5	YES	$ 425.00	1	$ 425.00	1	
X	17	3	GJ502L	GINGERBREAD JUMPING ROPE	3-3 X 9	YES	$ 400.00	1	$ 400.00	1	
O	17	3	GG801L	GINGERBREAD GIRL	4-2- X 3-2	NO	$ 160.00	2	$ 320.00	2	
O	17	3	GB802L	GINGERBREAD BOY	4-2- X 3-2	NO	$ 160.00	2	$ 320.00	2	
O	12	3	SF210L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	6	$ 450.00	6	
O	12	3	SF215L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	3	$ 225.00	3	
										17	2 units
Building # 4			12 FEET	**PENGUIN**							
X	4	4	5CA502L	WAVING SANTA	5-3 X 3	YES	$ 225.00	1	$ 225.00	1	
O	10	4	PG662L	PENGUIN	2-11 X 1-8	NO	$ 80.00	4	$ 320.00	4	
X	11	4	PH742L	PENGUIN BUILDS A SNOWMAN	5 X 9-4	YES	$ 450.00	1	$ 450.00	1	
X	11	4	5P515L	PENGUIN SNOWBALLL FIGHT	3-8 X 9	YES	$ 300.00	1	$ 300.00	2	
O	12	4	SF210L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	3	$ 225.00	3	
O	12	4	SF215L	3' SNOWFLAKE	3' DIAMETER	NO	$ 75.00	6	$ 450.00	6	
							$ 7,505.00		$ 11,440.00	17	2 Units
											9 Total

Possible 'Arch' (16 jumps, 128 sections, 2 feet per section, 8' diameter, 8 controllers) $ 350 per arch $ 5,600.00

Possible 6 star burst displays (2 displays per package with 1 LOR controller, 8 circuits per display) $ 1,130 per package...need 3 packages $ 3,390.00