



Rezoning Application Packet

FOR PROJECTS REQUIRING A SITE ANALYSIS

A site analysis shall be submitted for rezoning of any site that is:

- Greater than one acre in size to be developed for nonresidential uses;
- Greater than one acre in size to be developed at a residential density of four or more residences per acre; or
- Greater than five acres in size.
- Greater than one acre in size to be developed as a mixed use residential/nonresidential project.

Exception: Residential rezonings up to six acres shall not require a site analysis if the parcel is to be divided into no more than five parcels with not more than one residence on each parcel except when rezoning to SH (Suburban Homestead) for no more than two residences per acre.

**SITE ANALYSIS POLICY ADOPTED BY THE BOARD OF SUPERVISORS
JULY 2, 1985***

*[Amended: March 3, 1987; June 22, 1988; April 4, 1989; May 16, 1995; October 2, 1996; March 3, 1998; March 16, 2010; January 17, 2017; October 17, 2017]



REZONING PROCESS

STEP 1: APPLYING FOR A REZONING:

Pre-application Meeting. A rezoning pre-application meeting is required. The pre-application meetings are held the third (3rd) and, if necessary, the first (1st) Wednesdays of each month beginning at 9:00 A.M. At the pre-application meeting, the applicant discusses the proposed rezoning with the Planning Division staff and representatives from the Department of Transportation, the Regional Flood Control District, Office of Sustainability and Conservation, the Department of Natural Resources, Parks and Recreation, and other County departments as necessary. The meeting discussion includes, at minimum, verification of conformance with the comprehensive plan (and any applicable zoning plan), the physical features of the site, the proposed uses, the potential effects on surrounding properties and other possible rezoning issues, and the site analysis requirements.

Pre-application Public Meeting. Prior to submitting the rezoning application, the applicant is strongly encouraged to meet with affected property owners and neighborhood and homeowners' associations within at least the required notice area for the proposed rezoning. The site analysis includes a section (II.A.2.) requiring the applicant to discuss how the proposed project addresses neighborhood concerns.

Submittal Materials and Fees. The applicant prepares a submittal package which includes:

- Completed application form
- Letter of authorization (if applicable)
- Ownership disclosure (if applicable) with signature (if ownership is a numbered trust - a signature of the Trust Officer is required along with beneficiaries; if ownership is an LLC, LP, corporation or company - a signature from an officer with his/her title along with a list of the officers)
- For any submittals in which the zoning and/or land use boundary is contained with a portion of a parcel or parcels that creates its own unique boundary that is not legally described, an ESRI Shapefile or Auto Cad DWG file referenced to the Pima County GIS coordinate system
- Site Analysis
- Fees

For electronic submittal, the packet may be emailed to DSDPlanning@pima.gov

Fees for electronic submittal will be generated within the rezoning case and paid through the use of the online payment portal.

Site Analysis

The site analysis is a tool to enable the public, elected officials, the Planning and Zoning Commission, staff and developers to comprehensively evaluate a rezoning request in relation to the policies of the Pima County Comprehensive Plan, County ordinances and other County policies. The site analysis also provides an opportunity for all parties to identify points that may arise during the public hearing process. There are two parts to the site analysis - the Site Inventory and the Land Use Proposal. The Site Inventory describes existing characteristics and

conditions of the site, identifying the development constraints and development opportunities of the site. The Land Use Proposal sets forth the project design based on the site inventory, intended uses, Comprehensive Plan goals and policies, surrounding features, neighborhood issues and other considerations. The Board of Supervisors recommends that the site analysis be professionally prepared by land use planners, landscape architects, architects, and/or engineers.

The Planning Official may administratively make minor modifications to the site analysis document provided the modifications reflect internal business practices or adopted zoning code text amendments.

Amended site analysis: An amended site analysis may be requested based upon the scope and intensity of the rezoning as allowed by the zoning code. The determination of the sections to be amended shall be made by the Planning Official or his/her representative.

An amended site analysis may be requested when the following apply:

- A 1-5 acre rezoning site proposed for nonresidential uses, or for a residential density of four or more residences per acre, or for mixed residential/nonresidential uses.
- A 1-10 acre rezoning site where at least 75% of the abutting property within 300 feet has equal or less restrictive zoning than that being requested.
- A 5-10 acre rezoning site proposed for a density of one residence per acre or less.
- Projects that will avoid floodways, floodplains, erosion hazard setbacks, Pima County regulated riparian habitat, and will maintain natural drainage patterns.
- Projects that will be developed under a “green”, LEED, or sustainability program.
- For larger, multi-phased, mixed use projects where a master block plat will be submitted and the originally required information will be provided at the block plat stage. See Attachment B.
- Similar situations not specifically listed above but are determined by the Planning Official or his/her representative to represent less intense uses based on the restrictiveness of zones established by the Zoning Code.

Concurrent Site Analysis, Tentative Plat or Site Instrument: The site analysis and tentative plat or site instrument may be submitted at the same time at the applicant's own risk. If planning to submit simultaneously, please notify planning staff at the required pre-application meeting.

Initial Review of Submittal. The applicant submits a complete electronic copy of the submittal package either electronically or in person. Refer to page 5 for the site analysis requirements. Prior to public hearing, the case planner may request one paper copy of the approved site analysis.

Site Analysis Format:

- 8 ½” x 11” format is preferred, maps may be larger but need to be consistent in size
- Provide a Table of Contents with page numbers on all pages, exhibits, and maps
- Contents to be presented in the same order and same numbering system as shown in these site analysis instructions
- Maps/illustrations:
 - Scale may be determined by applicant but maps must be clear

- Maps shall be clearly identified with descriptive legends, titles, north arrow, scale, dimensions, and contour intervals
- Locate maps at end of applicable subsections
- Where noted, maps may be combined if information is clear
- An acetate overlay map may be requested by staff
- Topographic maps shall be prepared using either one-foot or two-foot contour intervals
- Aerial photographs shall be the most current publicly available. If significant changes have occurred since the date taken, describe the changes.
- Bound – spiral binding or notebook style to open flat for review

The planner will conduct an initial complete submittal review, including determining if the submittal meets the site analysis checklist. This review is not a thorough, qualitative evaluation of the submittal which occurs later by the specific departments. The applicant should be aware that subsequent review may result in a request for additional or amended information.

If the applicant chooses not to address a particular site analysis requirement, the applicant shall address the deficiency and the reason for it in writing to staff and the Commission. Evaluation of the reasoning for the deficiency may be part of the staff report and staff presentation. If the information is deemed a “critical deficiency”, subsequent steps in the process, including the hearing, may be delayed or the deficiency may be cause for a negative recommendation by staff.

If the initial complete submittal or subsequent more detailed review finds that a site analysis is in noncompliance with existing ordinances such that the request cannot proceed to the hearing without significant changes or the request appears to be counter to a Comprehensive Plan policy, the applicant shall address the non-compliance in writing and the non-compliance may be cause for a delay or a negative recommendation by staff.

Processing by Staff and Public Meeting. The rezoning case will be assigned to a specific case planner to work with the applicant throughout the process. The case planner will distribute the submittal package to departmental staff and external agencies for an in-depth, qualitative review of the site analysis. The reviewers will provide written comments to address possible issues related to the project and will make a recommendation along with recommending rezoning conditions.

The applicant shall hold a public meeting prior to the public hearing before the Planning and Zoning Commission. The applicant must provide an opportunity for all of the neighborhood, homeowners’ associations of record and affected property owners to meet and discuss the rezoning proposal and site analysis. The written invitation to the meeting shall be sent to all property owners and neighborhood and homeowners’ associations of record within the 300-foot notification area, or within the 1000’ notification area if the rezoning is from existing RH, GR-1, SR or SR-2. In addition, staff recommends that any potentially affected parties outside of the notification area also be invited to the public meeting. A copy of the written invitation to the meeting must be received by staff at least 30 days prior to the Planning and Zoning Commission meeting

Planning staff schedules the rezoning application for public hearing before the Planning and Zoning Commission subject to the legal requirements for notice. Advertisement of the public hearing is published in the newspaper, a notice is mailed to the owners within the notification area, and a notice of public hearing is posted on the property to be rezoned. The case planner generates a staff report that contains a recommendation on the request, incorporating comments from agencies, departments, and the public, with recommended rezoning conditions.

STEP 2: PUBLIC HEARING OF A REZONING REQUEST:

The Planning and Zoning Commission. The rezoning request is heard at a public hearing by the Planning and Zoning Commission, which will make a **recommendation** to the Board of Supervisors (Board). The Planning and Zoning Commission may recommend **denial** of the application, or **approval subject to conditions**. The Commission may also continue the rezoning request for up to 9 months.

The Board of Supervisors. After receiving a recommendation from the Planning and Zoning Commission, the rezoning application is scheduled for, and heard at a public hearing by the Board of Supervisors, which may **deny** the application or grant **approval subject to conditions**, or continue the application for up to 9 months. The Board of Supervisors may amend the conditions approved by the Planning and Zoning Commission. The applicant or their representative should be present at both public hearings to answer any questions the Planning and Zoning Commission or Board of Supervisors may have.

Ordinance Adoption. If the Board of Supervisors approves the rezoning, planning staff will draft the **rezoning ordinance** and schedule it for approval by the Board (typically once the Board minutes are approved). The rezoning ordinance will change the zoning boundaries on the Official County zoning base maps, and will list the rezoning conditions approved by the Board.

STEP 3: FINALIZING THE REZONING:

A Completion of Rezoning Conditions. Adoption of the rezoning ordinance by the Board of Supervisors means that the new zoning is approved subject to compliance with the rezoning conditions approved by the Board. The rezoning conditions will be addressed after a rezoning or during permit review, subdivision plat review or site instrument review. A **CERTIFICATE OF COMPLIANCE** shall be approved prior to issuance of permits based on the new zoning. The rezoning ordinance lists the conditions which shall be satisfied before the certificate of compliance can be approved.

Note: If the rezoning requires submittal of a **subdivision plat**, or a **site instrument**, the applicant should contact the Building and Site Development Office, 201 North Stone Avenue, 724-9000 or refer to the Pima County Development services website to obtain the pertinent information for subdivision review procedures or the site instrument review procedures.

B. Certificate of Compliance (C of C). When the rezoning conditions have been satisfied, building permits may be issued. If the applicant has submitted a building permit, subdivision plat or a site instrument permit in conjunction with a rezoning application, the final permit approval shall result in an automatic C of C. There may be rezoning restrictions listed on subsequent building permits, subdivision plat, or site instrument which all future permits must adhere. The certificate of compliance must be approved within the time limit shown on the rezoning ordinance for the property.

If a certificate of compliance is not obtained within the time limit, a time extension may be applied for. Time extension requests must be received before the time limit expires. If the time limit expires and the applicant has not submitted a time extension request, the Board of Supervisors may revert the property to its original zoning classification with notice.

For questions please call the rezoning section of the Pima County Planning Division at 724-9000.

SITE ANALYSIS REQUIREMENTS

Definitions:

PCZC: Pima County Zoning Code
PDP: Preliminary Development Plan
NRPR: Department of Natural Resources, Parks and Recreation
RWRD: Regional Wastewater Reclamation Department

Sources of Information:

Biological Resources: Sonoran Desert Conservation Plan (SDCP) MapGuide
Hydrology: Mapped floodplains and Pima County Regulated Riparian Habitat maps may be viewed on Pima County Regional Flood Control District MapGuide here: http://webcms.pima.gov/government/flood_control/
This link goes to both floodplain specific MapGuide and a separate function referred to as the Flood Hazard Map in which users enter an address or parcel number and the map, with legend may be downloaded as a pdf or printed. Those needing digital files for use in GIS and CAD may fill out the Request Form and Disclaimer for Digital FIRM Maps here: http://webcms.pima.gov/UserFiles/Servers/Server_6/File/Government/Flood%20Control/Forms/form-digital-request.pdf
This form may also be used to request Special Studies Floodplains and other digital data available from the District. Those with sites impacted by floodplains or near washes are advised to consult with the District prior to design and to be familiar with the requirements of Pima County Code Title 16 and related rules and procedures found here: http://webcms.pima.gov/government/flood_control/
Recreation areas: Section 18.69.090 residential recreation areas and the Recreation Area Design manual
Transportation: Subdivision and Development Standards, Department of Transportation website, American Association of State and Highway Transportation Officials (AASHTO), Pima County Roadway Design Manual (PCRDM)

Site Analysis Requirements				
Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
I – Site Inventory				
I-A. Land Use				
	1	Location/Regional Context	Descriptive text	Site location in a regional context.
	2	Existing land uses on site	Descriptive text	Any existing land uses on the site.
	3	Existing easements	Map (S), unless no easements	All known easements (including access and utility).
	4	Comprehensive Plan on site & surrounding	Descriptive text	Comprehensive Plan designations(s). Rezoning or special area policies. Designated Focused Development Infrastructure Area (if applicable).
	5	Surrounding land uses	Descriptive text	Existing land uses; types of businesses.
	6	Pending rezonings, plats, development plans	Descriptive text	Pending or conditionally-approved rezonings; subdivision plats and/or development plans under review are optional pending availability on MapGuide.
I-B Topography and Grading				
	1	Topographic characteristics	Map (S, T) Descriptive text, if necessary	Topographic characteristics of site, including the following if present:
				a. Restricted peaks and ridges;
				b. Rock outcrops, talus slopes (accumulation of rock that lies on a steep mountain side or at the base of a cliff);
				c. Slopes of 15% to 25% and slopes greater than 25%;
				d. Any other significant topographic features;
				e. Existing grading and ground disturbance on the site.
	2	Average Cross Slope	Calculation	Pre-development average cross slope (per Ch.18.61 calculation).
I-C Hydrology				
	1	Off-site Hydrology	Aerial (T)	Watersheds for flows entering and leaving the site and concentration points with flows labeled.
	2	On-site Hydrology	Map (S, T) Descriptive text	a. Flood Control Resources Areas;

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Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
				b. Concentration points and 100-year peak discharges for all on-site watersheds;
				c. FEMA-designated floodplains and floodways, locally identified special study floodplains and administrative floodways or flow corridors;
				d. Floodplain delineation of any previously unmapped regulatory floodplain;
				e. Regulatory sheet flood areas and depths as mapped by Pima County, unless better information is provided with the submittal. Any data provided to supersede the sheet flood shall be shown;
				f. Any lakes, ponds, wetlands, springs, or other source(s) of perennial surface water;
				g. Erosion hazard setbacks for all on-site watercourses. If an erosion hazard setback from a watercourse just off-site impacts the project site, also show those limits;
				h. Pima County Regulated Riparian Habitat limits and classifications (acreage of each as a Table);
				i. Flow arrows for non-regulatory flows;
				j. Existing drainage easement(s) or other easements which could affect site drainage design;
				k. Existing drainage infrastructure (i.e. culverts, basins, etc.) on or adjacent to the site.
	3	Hydrology	Descriptive text	a. Features of the watersheds that may affect or be effected by the conditions of the site including downstream drainage conditions and whether or not the site is within basin that has been designated Critical;

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
				b. Acreage and 100 year peak discharge for upstream off-site watersheds at concentration points where the watercourse enters and exits the site (may be included as a table on the map);
				c. The methodology used to determine the Erosion Hazard Setbacks;
				d. The methodology used to determine the 100- year floodplains for peak discharges greater than or equal to 100 cfs, with justification identifying which are Federal, local or developer mapped.
I-D. Biological (Meets Biological Impact Report Section 18.91.030(D) (1)(h))				
Maps may be combined	1	Conservation Lands System (CLS)	Calculations	Acreage estimates for each CLS category.
See Note 1.	2	Priority Conservation Area (PCA)		
		Pima pineapple cactus	Statement Survey results Map (S), if available	Statement as to whether any part of project is within PCA and if so, survey information, and a location map if available. Existing survey data can be used if conducted \leq 1 year prior to rezoning submittal.
		Needle-spined pineapple cactus	Statement Survey results Map (S), if available	Statement as to whether any part of project is within PCA and if so survey information, and a location map if available. Existing survey data can be used if conducted \leq 1 year prior to rezoning submittal.
		Cactus ferruginous pygmy owl and burrowing owl	Statement Survey results Map (S), if available	Statement as to whether any part of project is within PCA and if so survey information and a location map, if available.
	3	Saguaros and Ironwood trees	Inventory Map (S)	Any saguaros (grouped into two size classes: \leq 6 feet and $>$ 6 feet tall). Any ironwood trees.

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Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
	4	Habitat Protection/ Community Open Space	Descriptive text	Identify which designation applies. Status of communications between owner and Pima County regarding potential acquisition.
I-E. Transportation				
	1	Existing/planned off-site streets	Map Descriptive text	Within the vicinity of the proposed rezoning including the nearest intersection with a major route (per Major Streets Plan). For projects generating ≤10,000 ADT, analysis of streets within one mile of the rezoning site. For projects generating > 10,000 ADT, analysis of roads within two miles. For those streets identified, provide the following general information:
				a. Existing right-of-way width;
				b. Number of travel lanes, capacity, and posted speed limit;
				c. Present Average Daily Trips (ADT);
				d. If there are existing bicycle and pedestrian ways;
				e. If any public roadway improvements are underway or scheduled within 5 years.
	2	Distances to existing drives/ intersections	Map	Distances from the site to existing driveways and intersections.
	3	Public Transit	Map Descriptive text, if necessary	If applicable, existing transit routes and stops serving the site (including route number, end points, headways, and hours of operation).
I-F. Sewers				
	1	Existing public sewer	Map Descriptive text, if necessary	Size and location of existing public sewer lines in relation to project site. If the site is not to be served by sewer, provide the reasons.
	2	Site constraints for sewer	Map Descriptive text, if necessary	If site can reasonably be served by sewer, provide known site constraints, if any, to using gravity flow sewers to serve the area, including but not limited to topography, shallow bed rock, high seasonal ground water levels, and 404 permit jurisdictional washes.
I-G. Recreation				

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
Maps may be combined	1	Existing recreational facilities on site and within 1 mile	Map Descriptive text	All existing parks and recreation areas accessible to general public, and public trails.
	2	Trail rights-of-way	Map Descriptive text	Trail rights-of-way.
I-H. Cultural Resources: Archaeological and Historic Sites				
	1	Records check	Report	Attach Arizona State Museum Records check.
	2	Survey title	Title	Title of archaeological field survey, if completed. See Note 2.
I-I. Composite	1	Composite of topographic, hydrologic and biological constraints	Map(s) (S,T)	Topographic, hydrologic and biological constraints
				1. Topography
				a. Restricted peaks and ridges;
				b. Rock outcrops and talus slopes;
				c. Slopes 15% to 25% and slopes 25% or greater;
				2. Hydrology
				a. Regulatory floodplains;
				b. Erosion Hazard Setbacks;
				c. Concentration points and 100- year flow rates entering and leaving the site;
				d. Sheet flooding areas;
				e. Regulated Riparian Habitat with classifications;
				f. Any lakes, ponds, springs, wetlands, or other source(s) of perennial surface water.
				3. Biological Resources
				a. All saguaros, by height categories (\leq six feet and $>$ six feet);
				b. Ironwood trees;
				c. Pima pineapple cactus;
				d. Needle spined pineapple cactus.
				4. Any area in which disturbance would be prohibited by any adopted Pima County ordinance or policy.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
II – Land Use Proposal				
II-A. Project Overview				
	1	Proposed zoning boundaries	Map (S) Survey, if necessary	Boundaries of zoning site if on parcel lines. If rezoning to multiple zoning districts or a site within a parcel: ESRI Shapefile or AutoCad DWG file referenced to the County GIS coordinate system for any zoning and/or land use boundary contained within a portion of a parcel or parcels that creates its own unique boundary that is not legally described or provide a survey delineating boundaries of each proposed zoning district. If simple parcel splits: the survey (but not the map), may be waived.
	2	Project description	Descriptive text	a. Proposed development use and type;
				b. Why the proposed development is the best design for the site and how the project responds to the opportunities and constraints of the site;
				c. How the proposed project conforms to the Comprehensive Plan and a specific plan amendment (provide amendment case number), including applicable Regional, Special Area and Rezoning policies;
				d. If there have been conversations or meetings with surrounding property owners - how the proposed project addresses any concerns or issues raised;
				e. The impact the proposed development will have on land uses within one-quarter mile of the site;
				f. How the project contributes to Smart Growth principles and if the project will facilitate use of solar energy and solar access and green building measures.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
	3	Compliance with zoning code	Descriptive text	Any sections/chapters of the zoning code for which this rezoning does not comply and how this will be addressed.
II-B Plan (PDP)				
	1	Preliminary Development Plan (PDP)	Map (S)	a. Parcel boundaries and dimensions;
				b. Approximate location and size of all proposed structures, or lots in the case of single-family detached developments (for large residential projects, a sampling of lots may be acceptable);
				c. Bufferyards/landscaped areas (i.e. existing significant vegetation areas to be protected);
				d. Recreation areas, common areas, functional open space and natural open space;
				e. Land uses;
				f. Number of stories of buildings within 300 feet of site;
				g. Known public and private easements and covenants that cross or are appurtenant to the site;
				h. Any applicable overlay zoning districts;
				i. Existing and proposed adjacent public rights-of-way;
				j. Points of ingress/egress, internal streets and circulation features, including bicycle and pedestrian paths;
				k. Existing and planned transit stops;
				l. Proposed trail right-of-way;

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
				m. Drainage features including, floodways, flow corridors, regulatory floodplains, erosion hazard setbacks, riparian habitat and proposed riparian mitigation areas, if any, concentration points and rates entering and leaving the site for regulatory flows and flow arrows for non-regulatory flows;
				n. Drainage improvements including: finished grade topography, erosion protection, detention and retention basins including volume, inlets, and outlets, culverts, bridges, dip sections, building envelopes or easements;
				o. If using on-site wastewater treatment and disposal, proposed primary and reserve disposal areas, if staff deems necessary;
				p. Other significant physical features, if staff deems necessary.
	2	PDP support data	Descriptive text, unless clearly shown on PDP	If applicable:
				a. Estimated floor area of commercial and industrial structures;
				b. Building heights;
				c. Total number of dwelling units;
				d. Maximum and minimum residential density of each planning unit;
				e. Type of landscaping;
				f. Acreage and description of natural and functional open space and recreation area(s);
				h. Any other information which cannot be depicted on PDP map.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
II-C Topography and Grading	1	Development/ mitigation on steep slopes	Descriptive text	If any features of the development as shown on the PDP (roads, structures, lots, walls, etc.) will be located on individual slopes of 15% or greater, with a 10 foot or greater natural fall, why these slopes could not otherwise be avoided. Measures to minimize development impacts such as erosion and degraded views of slopes.
	2	Natural areas under HDZ	Map (S,T) Calculation	Areas to be left natural per Ch. 18.61. New average cross slope and how calculated.
	3	Disturbed, revegetated, natural areas	Map Descriptive text, if necessary	Percentage of site to be:
				a) Retained as natural open space;
				b) Revegetated; or
				c) Graded or disturbed or shall remain graded or disturbed.
	4	Changes to natural grade	Map (S,T) Descriptive text	Areas where the natural grade will be changed more than 5 feet by cut or fill. Maximum change in natural elevation that will result from grading for both cut and fill.
II-D. Hydrology One Map				
	1	Post-development on-site hydrology	Map (S, T)	a. Washes to be left natural;
				b. Regulatory floodplains, with 100-year flow rates and concentration points;
				c. Erosion hazard setbacks for all on-site watercourses; if an erosion hazard setback from a watercourse just off-site impacts the project site also show those limits;
				d. Preserved Pima County Regulated Riparian Habitat and any proposed mitigation areas;
				e. Proposed drainage structures, such as any channels, swales, detention basins and retention basins including volumes, inlet and outlet points; See Note 3.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
				f. Cross-drainage structures such as bridges, culverts, and, dip sections;
				g. If building envelopes or proposed fill encroaches into the floodplains identified on the existing On-site Hydrology Conditions map, proposed erosion protection;
				h. Proposed alignment and inlets for storm drains;
				i. Any existing or proposed drainage easements or other easements which may conflict with the proposed drainage design;
				j. Streets, lots and building pads if proposed.
	2	Preliminary Integrated Water Management Plan (PIWMP)		See Attachment A
	3	Proposed hydrology	Descriptive text Table Map	a. How the PDP responds to the constraints and opportunities identified in the site inventory. Examples may include lot layout, building setback, density restrictions, building envelopes/pads, building placement, location of open space, open space and mitigation or enhancement areas, first flush water harvesting locations and other Low Impact Development practices and development limitations. If modified development standards, minimum lot size reduction options, clustering or other practices were used as provided for in Chapter 18 - describe them.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
				b. Justify why it is not possible to avoid encroachment including lots, structures, and roads into Flood Control Resource Areas, 100-year floodplains, Pima County Regulated Riparian Habitat, and erosion hazard setbacks. If modified development standards, minimum lot size reduction options, clustering or other practices were not used as provided for in Chapter 18 state why not. Include acreages for each type of encroachment.
				c. Provide a table of concentration points comparing discharge flowing onto and leaving the site before and after development. (may be included on the map).
				d. Location of potential engineering and design features that will be used to mitigate drainage and erosion problems. Examples may include optimized location of first flush water harvesting basins, detention, culverts, lot configuration and layout, riprap, revegetation, and the preservation of watercourses, floodplains and riparian habitat in their natural state.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
				e. Summarize the overall effect of the development on the drainage pattern of the site, including upstream and downstream improvements and how the PDP conforms to all applicable basin management policies; including whether the site is in a balanced or critical basin in which infrastructure is inadequate to handle existing flows, and any other applicable Pima County policies relating to flood control.
II-E. Biological Resources				
		Impacts to biological resources	Map (S,T)	Expected impact to the following resources:
			Descriptive text Calculation (quantify impact)	a. Each Conservation Lands System designation affected;
				b. Saguaros;
				c. Ironwood trees;
				d. Pima pineapple cactus;
				e. Needle-spined pineapple cactus.
II-F. Landscape, Bufferyards, and Visual Mitigation				
Maps may be combined				
	1	Bufferyards	Map (S)	Proposed bufferyard types and locations.
	2	Bufferyard conflicts	Descriptive text	Any known or proposed easements, setbacks, rights- of-way or other potential conflicts in areas proposed for bufferyards or natural open space.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
	3	Vegetation transplanting impacts	Descriptive text, if necessary	If vegetation from the site will be transplanted into the bufferyards, open space areas or other areas onsite, in general, how these areas will be able to accommodate the proposed plantings at maturity, in terms of size, configuration, location, and viability of the particular species transplanted (discussion of individual plants is not necessary).
	4	Mitigation of visual impacts	Descriptive text	Mitigation measures to be used to minimize visual impacts from structures and other development features (including graded areas). Mitigation measures may include: location of structures, natural areas and open space, the height of structures, the use of landscaping, areas of lower intensity land use, downlighting, and restrictions on light reflectance rating of structures.
	5	Significant vegetation		Other areas of significant or important vegetation to be protected.
II-G. Transportation				
	1	Proposed ingress/egress	Map Descriptive text	Proposed access to the site and rationale for the selected location(s). Internal circulation and anticipated off-site traffic and impacts to surrounding properties.
	2	Distances to access points	Map	Distances from proposed access points to existing driveways and intersections.
	3	Off-site road improvements	Descriptive text	Any off-site road improvements that are necessary to serve the project or connect to the existing roadway network.
	4	ADT and level of service	Descriptive text	Change to ADT and level of service for all streets analyzed in Section I-E.1. If road improvements will be completed within 5 years of submittal of the site analysis, use the expanded capacity in the calculations. If ADT figures are not available, state that no information is available.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
	5	Concurrency	Descriptive text	How the proposed project conforms to the Pima County Transportation Concurrency requirements.
	6	Bicycle and/or pedestrian	Map Descriptive text	Any proposed bicycle and/or pedestrian pathways within the development and whether they are connected to external pathways, arterial streets, parks or schools. How the proposed project intends to reduce automobile dependency and how it will maximize use of alternative modes of transportation.
	7	On-site street system	Descriptive text Diagrams	Proposed on-site street system and, if known, whether streets are public or private. Typical roadway sections, including ROW width, and indicate conformance with Pima County standards.
	8	Traffic Impact Study	Study	A Traffic Impact Study (TIS) must be submitted with the first submittal of the site analysis for projects generating > 10,000 ADT. DOT staff may require a TIS for projects generating < 10,000 ADT for situations such as:
				<ul style="list-style-type: none"> Roadways in the vicinity of the rezoning site are functioning over capacity;
				<ul style="list-style-type: none"> Significant safety issues including high crash rates, pedestrian involved crashes, or site visibility concerns;
				<ul style="list-style-type: none"> Substantial off-site improvements are necessary to facilitate the rezoning;
				<ul style="list-style-type: none"> Significant traffic issues are identified.
II-H On-site Wastewater Treatment and Disposal (if necessary)				

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
	1	Reasons for not connecting to sewer	Descriptive text	If there are public or private sewer collection lines within 200 feet of the rezoning boundary then the property must be served by sewer. A waiver from this requirement may be granted by PDEQ as allowed by PCC 7.21.037.
	2	Soil evaluations	Descriptive text Analysis	If on-site wastewater treatment/disposal facilities (conventional or alternative septic systems) are proposed, an applicant must submit a geological report containing percolation tests and soil borings or other reliable solid data as required by Arizona Administrative Code, Title 18, Chapter 5. The report must show an individual disposal system can be reasonably expected to function properly on each lot. If soil conditions and terrain features or other conditions are such that individual sewage disposal systems cannot be expected to function satisfactorily or where groundwater or soil conditions are such that individual sewage disposal systems may cause pollution of groundwater, they are prohibited.
	3	Primary/reserve disposal areas	Map (S,T) Descriptive text Calculation	If on-site wastewater treatment will be used, primary and reserve disposal areas. Information demonstrating that the site can successfully accommodate an on-site wastewater treatment system (including both a primary disposal area and a 100 percent reserve disposal area). For single-family residential lots, calculations shall be based on a hypothetical four bedroom dwelling with a minimum one-acre lot size.
II-I. Sewers				

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
	1	Capacity response letter	Letter	A RWRD capacity response letter written within 90 days of the submittal of the site analysis regarding the availability of treatment and conveyance capacity in the downstream public sewerage system for the proposed development.
	2	Method of providing sewer	Descriptive text	In general, the method of providing sewer service to the proposed development including where the project will connect to the regional sewer system.
	3	Sewer easements	Descriptive text, if applicable	If collection or transmission sewers (not house connection sewers) are to be located on-site or off-site in areas other than paved public or private rights-of-way, state the reasons, and then show proposed sewer easement(s) on the PDP, including the width, to the point of connection to existing sewers.
	4	Mitigation of site constraints	Descriptive text, if applicable	Methods that will be used to address all site constraints to providing gravity sewer service identified in Section I.F.
II-J. Water				Refer to Section II.D.
II-K. Schools (Residential Developments)	1	Access to adjacent or on-site schools	Map Descriptive text, if necessary	How access will be provided to any schools within or abutting the site.
	2	School capacity analysis	Letter	School capacity analysis response letter from applicable school district that addresses the following:
				a. Present and official projected enrollments of the elementary, middle and high schools expected to serve the proposed residential development;
				b. Anticipated increase in enrollment at each school resulting from the proposed residential development (include the multipliers used by the school district);

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
				c. The under(over) capacity, by number and percentage, of each school's enrollment as a result of the proposed residential development;
				d. The projected enrollment and under (over) capacity, by number and percentage, of each school based on residentially zoned land located within the school's service area. The calculation is to include approved rezonings, as applicable;
				e. School facilities improvements affecting the above service area enrollment calculations.
	3	Agreement with school district for mitigation	Descriptive text	Any communications with school district on impact mitigation. If so, state if an agreement has been reached and what the agreement entails. If possible, provide documentation, such as a letter from the school.
II-L. Recreation	1	On-site recreation	Map (S) Descriptive text, if necessary	On-site recreation elements. Location of all proposed recreation areas for the development.
	2	Ownership of recreation areas	Descriptive text	Proposed ownership of recreation areas and natural and modified open space within the development, (e.g. whether through HOA's, individual lot owners, recorded covenants or easements). For areas to be preserved as natural open space, any enforcement mechanisms to be used, such as third party enforcement.
	3	Proposed trails on or off-site	Map Descriptive text	Demonstrate how any proposed trails within or adjacent to the development comply with the "Pima Regional Trails System Master Plan" or if not, why such compliance is not required.
II-M. Cultural Resources		None	NA	See Note 4.

Requirements [Key: S: Scaled same as PDP T: Topographic map with contours]				
Section	Sub-section	Subject	Form (only one)	Content (Label, show, or explain as applicable).
II-N. Environmental Quality		Methods of controlling dust pollution	Descriptive text	Methods/plans for controlling dust pollution during the construction of the project and thereafter. Plans for assuring that all newly created roads, including haul roads, are paved or permanently dust-stabilized to County standards.
II-O. Agreements		Agreements with neighboring properties	Descriptive text	Information concerning specific agreements, if any, made with neighboring property owners regarding the proposed project (e.g. bufferyard agreements, height limitations, walls, etc.).

Note 1:

For Pima pineapple cactus, ironwood trees, and saguaros (grouped into two size classes: ≤ 6 feet and > 6 feet tall) survey and survey results, staff will allow this information to be carried over for future Native Plant Preservation Plan submittals for up to five years provided that the survey shall be conducted by an entity qualified to perform biological surveys, and performed according to the most recent protocol approved by the US Fish and Wildlife Service. The property owner may request an extension of the five-year time limit at the time of a request for a time extension of the approved rezoning. The property owner must provide written justification for the extension with the application for the time extension and the Planning Official or his/her designee will review the request on a case-by-case basis at the time of application for a time extension.

If cacti are found as a result of a survey, as a courtesy, please provide this information to the Arizona Game and Fish Department's Heritage Data Management System.

Sampling, in place of a survey or inventory, may be appropriate for certain properties, pending staff approval.

Note 2:

At the time of submittal of development plan or tentative plat, and prior to Site Construction Permit application, submit survey/report directly to the Office of Sustainability and Conservation, Cultural Resources and Historic Preservation Division.

Note 3:

Volumes may be estimated by Equation 3.8 of the Design Standards for Stormwater Detention and Retention. First-flush retention volumes are calculated using the volume per acre required as shown in Table 2.1 of the Design Standards. Basins should be located in common area in subdivisions unless an alternative has been approved by the Floodplain Administrator.

Note 4:

At the time of submittal of the development or tentative plat, and prior to Site Construction Permit application submittal, if required, cultural resources documentation (e.g. survey report, mitigation plan, etc.) will be submitted to the Office of Sustainability and Conservation, Cultural Resources and Historic Preservation Division. Upon review, Cultural Resources staff will determine the appropriate cultural resources requirements for the proposed land use.

ATTACHMENT A

Preliminary Integrated Water Management Plan Requirements

A Preliminary Integrated Water Management Plan (PIWMP) is required pursuant to the Pima County Comprehensive Plan. This requirement was initiated by the Board of Supervisors, under the Water Resources Element in 2008 (C07-07-04, Resolution 2008-72) and was subsequently revised in Pima Prospers, Chapter 4 Physical Infrastructure Connectivity, Section 4.2 Water Resources Element, Goal 1, Policy 7, and Goal 3, Policy 8 (C07-13-10; Resolution 2015-62). This policy applies to all properties submitted for consideration of rezoning that require the submittal of a Site Analysis. The information to be submitted and how it will be evaluated is described below.

Water Resources Impacts Assessment conducted by staff shall include:

In the staff report, the Pima County Regional Flood Control District shall provide the following information for all rezoning cases:

- a) Availability of renewable and potable water supplies;
- b) Water use estimates for maximum build out-under existing and proposed zoning;
- c) Current and projected depth of groundwater and groundwater trend data at the site or wells serving the site;
- d) Proximity of site and wells serving the site to known or potential subsidence areas;
- e) Proximity of site and wells serving the site to groundwater-dependent ecosystems; and
- f) Hydrogeologic basin, including depth to bedrock.

Staff shall prepare the water use estimates. A modified version of the ADWR Demand Calculator may be used, unless water demand information or an alternative method of calculating demand is more representative of local conditions. A Quick Reference Guide to the modified ADWR calculator is provided for informational purposes. This Guide and the functioning spreadsheet may be updated and shall be made available by the Pima County Regional Flood Control District as needed.

The Preliminary Integrated Water Management Plan submitted by the applicant shall include:

1) All Rezoning Cases:

When the proposed rezoning site is served by a water system with a potable and renewable supply, the following two items will satisfy the PIWMP requirement:

- a) A "will serve" letter by the water service provider.
- b) A commitment to implement sufficient Water Conservation Measures at the development review stage to obtain 15 points on Table A for residential projects or Table B for commercial projects attached hereto for reference. This table shall be updated as new methods become known and the tables in use at the time of development shall be provided by the Flood Control District. The applicant MAY submit Table A or B with the Site Analysis.

The water providers considered to have potable and renewable supply are those that have CAP subcontracts listed in Central Arizona Water Conservation District's CAP subcontracting status report. At this time, they are:

1. Community Water Company of Green Valley
2. Flowing Wells Irrigation District
3. Green Valley Domestic Water Improvement District
4. Town of Marana
5. Metropolitan Water District – Main Service Area
6. Town of Oro Valley
7. Spanish Trail Water Company
8. City of Tucson – Main Service Area
9. Vail Water Company

This list may be amended by ADWR and the list in effect at the time rezoning shall be consulted. For those providers with multiple physically separate supply and distribution networks the staff recommendation shall be based upon the availability of renewable and potable water within each component separately.

2) Not Served by Potable and Renewable Water Supply:

In cases where the rezoning site will not be served by potable and renewable water supply, the applicant shall also provide:

- a) A description of where the proposed rezoning will occur geographically based upon its proximity to existing and planned renewable supply and potable water supply infrastructure and defined water service area boundaries.
- b) A map showing the location of the development and all wells, existing and proposed, that may be used to supply water to the development, including ADWR well registry numbers for existing wells and the geographic relationship including distance to:
 - a. subsidence areas;
 - b. isolated basins; and
 - c. groundwater-dependent ecosystems including:
 - i. springs;
 - ii. perennial streams;
 - iii. intermittent streams; and
 - iv. shallow groundwater areas.

This information is mapped on the Sonoran Desert Conservation Plan GIS database available at the following link and by request from the Pima County Regional Flood Control District:

<http://gis.pima.gov/maps/sdcp/>

- c) A commitment to implement additional Water Conservation if there is increased demand as demonstrated by the Water Supply Impact Review. The additional required Water Conservation Measures shall be based on 1 additional point per additional acre-foot of increased demand. The applicant MAY submit additional information regarding the calculation of the existing or proposed demand or may rely on the demand calculations provided by staff. The applicant MAY submit Table A or B with the Site Analysis.

3) Not Potable and Renewable Water Supply and Impacts a Sensitive Area:

In cases where the rezoning site or wells that serve the site draw water from areas that are within one mile of a groundwater-dependent ecosystem, or are within a subsidence area or isolated basin, the District will recommend denial of the rezoning unless the applicant either accepts additional Water Conservation Measures performance standards; or demonstrates that the development will not have an impact on groundwater-dependent ecosystems. This demonstration *may* include:

- a) An analysis of water level trends in the area from which groundwater will be withdrawn for the service to the development;
- b) Existing site-specific geologic and hydrogeologic studies available for the area from which groundwater will be withdrawn to serve the project; or,
- c) A hydrologic impact analysis to show how groundwater withdrawn for the development may impact ecological assets including employing pump tests and monitoring, and use avoidance strategies, including well site selection and screening of wells or a draw-down analysis for impact of water demand of the development on any proposed or existing wells within the 10-foot draw-down contour after five years of pumping at full build-out.

A commitment to implement additional Water Conservation Measures will be required if there is increased demand as demonstrated by the Water Supply Impact Review. The additional required Water Conservation Measures shall be based on 2 additional points per additional acre-foot of increased demand. The applicant *MAY* submit additional information regarding the calculation of the existing or proposed demand or may rely on the demand calculations provided by staff.

Determination:

Upon review of all available information, the following are the anticipated conditions of rezoning:

1) Served by Potable and Renewable Water Supply:

- a) Staff shall recommend a condition stating: "At the time of development the developer shall be required to select a combination of Water Conservation Measures from Table A or B such that the point total equals or exceeds 15 points and includes a combination of indoor and outdoor measures OR Commit to obtain LEED Certification with a minimum of 6 Water Use points." Use when applicable, "The Water Conservations Measures submitted with the Site Analysis are acceptable to satisfy the Demand off-set at the time of development. Alternative measures may be proposed at the time of platting"

2) Not Served by Potable and Renewable Water Supply:

- a) The rezoning site is greater than one mile from a groundwater-dependent ecosystem and the wells serving the site draw water from areas that are over one mile from a groundwater-dependent ecosystem:

i) Staff shall recommend conditions stating:

- a. "At the time of development the developer shall be required to select a combination of Water Conservation Measures from Table A or B such that

the point total equals or exceeds XX points and includes a combination of indoor and outdoor measures". Use when applicable, "The Water Conservations Measures submitted with the Site Analysis are acceptable to satisfy the Demand off-set at the time of development. Alternative measures may be proposed at the time of platting."

The XX in the case is 15 points plus one point for each additional acre-foot of increase in demand due to the requested rezoning.

- b. "At the time of development the developer shall be required to submit written proof from the water provider that the wells are greater than one mile from a groundwater-dependent ecosystem."
- b) The rezoning site is within a subsidence area or the wells that serve the site draw water from a subsidence area:

- i) Staff shall recommend conditions stating:

- a. "At the time of development the developer shall be required to select a combination of Water Conservation Measures from Table A or B such that the point total equals or exceeds XX points and includes a combination of indoor and outdoor measures" Use when applicable, "The Water Conservations Measures submitted with the Site Analysis are acceptable to satisfy the Demand off-set at the time of development. Alternative measures may be proposed at the time of platting."

The XX in the case is 15 points plus one point for each additional acre-foot of increase in demand due to the requested rezoning.

- b. "At the time of development the developer shall be required to submit written proof from the water provider that the wells are outside the subsidence area."
- c) The rezoning site or wells serving the site are within one mile of a groundwater-dependent ecosystem, or the wells serving the site are within an isolated basin:

- i) Staff shall recommend a condition stating: "At the time of development the developer shall be required to select a combination Water Conservation Measures from Table A or B filled out such that the point total equals or exceeds YY points and includes a combination of indoor and outdoor measures". Use when applicable, "The Water Conservations Measures submitted with the Site Analysis are acceptable to satisfy the Demand off-set at the time of development. Alternative measures may be proposed at the time of platting."

The YY in the case is 15 points plus two points for each additional acre-foot of increase in demand due to the requested rezoning.

Definitions

Acre-Foot (or Acre-Feet)

An acre-foot is a unit of water volume that is equal to one foot of depth across an acre of land (43,560 square feet). One acre-foot of water is equal to approximately 325,851 gallons of water. To convert to average daily water use in gallons to acre-feet, multiply the volume in gallons by 365 and divide by 325,851. A single family residence typically consumes about 1/3 acre-foot of water per year.

Drawdown

Drawdown is the drop in groundwater at the well from the static groundwater level to the level encountered when the well pump is being run.

Groundwater-Dependent Ecosystems

Groundwater-dependent ecosystems are shallow groundwater areas which include springs, perennial streams, intermittent streams and shallow groundwater areas as mapped on the Sonoran Desert Conservation Plan GIS database which can be found at:

<http://gis.pima.gov/maps/sdcp/>

Isolated Basins

Isolated basins means all hydrologic basins in Pima County except the Tucson and Avra basins.

Municipal Provider

As defined in Arizona Revised Statutes 45-561, a city, town, private water company or irrigation district that supplies water for non-irrigation use.

Preliminary Integrated Water Management Plan (PIWMP)

The Preliminary Integrated Water Management Plan is a document which details proposed water resources, reuse, replenishment, conservation and use of renewable water supplies for the proposed project for properties that are submitted for consideration of rezoning. The plan also establishes the anticipated water use and source of water for the proposed development.

Renewable & Potable Water

As defined in Resolution 2008-72, renewable and potable water means a quality of water that is suitable for essential human uses such as drinking, cooking or cleaning, and which is derived from a renewable source. Treated surface water including treated Central Arizona Project water is considered to be renewable and potable, but effluent and groundwater are not.

Renewable & Potable Water Supply

Such sources primarily include municipal water systems with Central Arizona Project water allotments. For purposes of implementing the PIWMP, use of groundwater may be considered compatible with Resolution 2008-72 under those circumstances where groundwater withdrawal is mitigated through recharge in the same area of hydrologic impact. Renewable and potable supplies may include but are not limited to CAP subcontract, CAGR membership, long-term storage credits, or other supplies wheeled through the CAP Canal such as mainstem Colorado River Water or other supplies delivered by the Central Arizona Water Conservation District. Additionally, effluent may be considered renewable and potable at such time as suitable authorization is granted by the Arizona Department of Environmental Quality.

Subsidence

Subsidence is the downward movement of the earth's surface due to compaction of sediment, generally as a result of the over-pumping of groundwater. For the purposes of this document it is the lowering of land surface by more than three inches as mapped by US Geological Survey.

Table A - Water Conservation Measures - Indoor and Outdoor Options for Single Family Subdivision Development (Water Conservation Measures: 15-point Minimum. All projects must include at least 2 outdoor options. For projects without a renewable and potable supply, 1 additional point per acre-foot demand increase when site and supply well(s) is greater than 1 mile away or is within a subsidence area, or 2 additional points within one mile of a Groundwater-Dependent Ecosystem.)

Indoor Options			
I-1	Install gray water plumbing lines per City of Tucson ordinance 10579, gray water lines labeled and stubbed out at or above grade.	2	
I-2a	Install a manual or motion activated on-demand hot water circulation pumping system. All branches from the loop shall be less than or equal to 10 feet and less than or equal to 1/2 inch diameter.	3	
I-2b	Insulate all domestic hot water supply lines with R4 insulation.	1	
I-2c	Install tankless on demand hot water heater(s).	2	
I-3a	All toilets have a maximum flow rate of 1.28 gallons per flush, or flush valves have a maximum flow rate of 1.28 gallons per flush (e.g. EPA Watersense™). OR	3	
I-3b	All toilets have a maximum flow rate of 1.1 gallons per flush, or flush valves have a maximum flow rate of 1.1 gallons per flush (e.g. EPA Watersense™). OR	4	
I-3c	Install dual flush toilets with 1.6 gpf/.8 gpf or less water use.	3	
I-3d	All lavatory sinks and showerheads have a maximum flow rate of 1.5 gpm. The total allowable shower compartment flow rate from all showerheads, rain systems, waterfalls, body sprays and jets at a given time shall be limited to 1.5 gallons per minute. (maximum flow rate of 1.5 gpm @ 80 psi of pressure) (e.g. EPA Watersense™)	3	
I-4	If active rainwater harvesting system is installed, connect the rainwater tank to an appropriate distribution system serving the toilets and size to meet the majority of demand.	4	
I-5	Install new washing machine with water factor of 4.5 or less (e.g. EnergyStar).	2	
I-6	Install 1.5 gpm kitchen sink and dishwasher which uses less than 3.5 gallon/cycle (e.g. EPA Watersense™/ EnergyStar).	3	
I-7	Install a leak detection system.	1	
I-alt	Additional indoor measures may be proposed by applicant.	#	
Sub-Total from Indoor Options		31	0
Outdoor Options			
O-1a	Install active or passive on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 20% of total on lot impervious area.	2	
O-1b	Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 40% of total on lot impervious area.	4	
O-1c	Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 60% of total on lot impervious area.	6	
O-1d	Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 80% of total on lot impervious area.	8	
O-1e	Install on-lot rainwater harvesting system capable of capturing 0.5 inch of rainfall from 100% of total on lot impervious area.	10	
O-2	Install a grey water irrigation system.	2	
O-3a	Use only native and/or drought-tolerant, low-water use plants for 25% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf OR	1.5	
O-3b	Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting.	3	
O-3c	Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting.	4.5	
O-3d	Use only native and/or drought-tolerant, low-water use plants for 100% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting.	6	
O-4a	CC&Rs that restrict the use of non-native plants and turf grasses in front yards of lots.	0.5	
O-4b	CC&Rs that restrict the use of non-native plants and turf grasses.	1	
O-4c	CC&Rs that restrict construction of swimming pools, mister systems and other outdoor water features.	1	
O-5a	Design for pervious driveway and walkway surfaces, 2 pts per 10,000 square feet.	2	

O-6a	Irrigation system designed and installed by a certified professional (e.g. EPA Watersense™).	1	
O-6b	Install an irrigation system with the following components: 1) Weather based irrigation controller or soil moisture sensor-based irrigation controller (e.g. EPA Watersense™). Controller shall have two watering schedules posted at the controller: a) for the initial grow-in period and b) for the established landscape. Controller shall be set to irrigate during the hours of 10 p.m. to 8 a.m.; 2) Turf spray heads, if installed, shall only be used for turf and shall achieve a lower quarter distribution uniformity (DULQ) of 65 percent or greater and contain check valves to prevent gravity drainage of water from heads; 3) Separate sprinkler zones for beds, with plants grouped based on watering needs (hydro zoning); 4) Drip irrigation for all non-turf planting beds.	2.5	
O-7a	Maintain undisturbed buffer yards with native species landscaping with 50% of demand met with passive water harvesting.	2	
O-7b	Maintain undisturbed buffer yards with native species landscaping with 100% of demand met with passive water harvesting.	4	
O-8	At least 50% of first-flush retention volume located in off-lot distributed basins instead of within project-wide detention basin.	2	
O-9a	Stormwater retention volume exceeds first flush retention volume by at least 20%.	2	
O-9b	Stormwater retention volume exceeds first flush retention volume by at least 40%.	4	
O-9c	Stormwater retention volume exceeds first flush retention volume by at least 60%.	6	
O-9d	Stormwater retention volume exceeds first flush retention volume by at least 80%.	8	
O-9e	Stormwater retention volume exceeds first flush retention volume by at least 100%.	10	
O-10a	Avoid, other than incidental disturbances, Flood Control Resources Area through use of cluster development, conservation subdivision, or modified development standards.	5	
O-10b	Avoid, other than incidental disturbances, Flood Control Resource Area, developer mapped floodplains and Erosion Hazard Setback Areas through use of cluster development, conservation subdivision, or modified development standards.	10	
O-alt	Additional outdoor measures may be proposed by applicant.	#	
Sub-Total from Outdoor Options		98	0

Infrastructure Options

Inf-1	Relocate or abandon active well(s) located in a shallow groundwater area.	15	
Inf-2	Relocate or abandon active well(s) located within a mile of a shallow groundwater area.	7	
Inf-3	Seal off perched aquifers and recent alluvium in wells to prevent cascading well.	7	
Inf-4	Enhance native vegetation, including regulated riparian habitat, in on-site natural drainage patterns, using Low Impact Development and Green Infrastructure practices.	3	
Inf-5	Enhance groundwater recharge potential of detention basins in shallow groundwater areas.	5	
Inf-alt	Additional infrastructure options may be proposed by applicant.	#	
Sub-Total from Infrastructure Options		37	
PROJECT TOTAL		129	

* Landscape Area - Bufferyards and Common Area

To be Determined

Table B - Water Conservation Measures
Indoor and Outdoor Options for Commercial and Multi-Family Development
(Water Conservation Measures: 15-point Minimum. All projects must include at least 2 outdoor options. For projects without a renewable and potable supply, 1 additional point per acre-foot demand increase when site and supply well(s) is greater than 1 mile away or is within a subsidence area, or 2 additional points if within one mile of a groundwater-dependent ecosystem.)

Indoor Options			
I-1a	Install gray water plumbing lines per City of Tucson ordinance 10579 to meet 25% of non-potable demands.	2	
I-1b	Install gray water plumbing lines per City of Tucson ordinance 10579 to meet 50% of non-potable demands.	4	
I-2a	All toilets have a maximum flow rate of 1.28 gallons per flush, or flush valves have a maximum flow rate of 1.28 gallons per flush (e.g. EPA Watersense™).	3	
I-2b	All toilets have a maximum flow rate of 1.1 gallons per flush, or flush valves have a maximum flow rate of 1.1 gallons per flush (e.g. EPA Watersense™).	4	
I-3	Multi-family lavatories and all kitchen sinks and showerheads have a maximum flow rate of 1.5 gpm. The total allowable shower compartment flow rate from all showerheads, rain systems, waterfalls, body sprays and jets at a given time shall be limited to 1.5 gallons per minute. (maximum flow rate of 1.5 gpm @ 80 psi of pressure) (e.g. EPA Watersense™).	3	
I-4	Use waterless urinals throughout the development.	2	
I-5	Use of efficient water-cooled chiller.	2	
I-6	Install on demand hot water heater(s).	2	
I-7	Install new efficient washing machine (water factor 4.5 or less), dishwasher (3.5 gallon per cycle or less), and food disposal (e.g. Energy Star) in each multi-family unit.	2	
I-8	Install 1.5 gpm kitchen sink and dishwasher which uses less than 3.5 gallon/cycle (e.g. EPA Watersense™/ EnergyStar) in each multi-family unit.	3	
I-9	Install a leak detection system.	2	
I-10	Install separate water meters for each multi-family unit.	3	
I-alt	Additional indoor measures may be proposed by applicant.	#	
Sub-Total from Indoor Options		32	0
Outdoor Options			
O-1a	At least 25% of retention volume located in distributed basins instead of within a project-wide detention basin.	1	
O-1b	At least 50% of retention volume located in distributed basins instead of within a project-wide detention basin.	2	
O-1c	At least 75% of retention volume located in distributed basins instead of within a project-wide detention basin.	3	
O-1d	At least 100% of retention volume located in distributed basins instead of within a project-wide detention basin.	4	
O-2a	Stormwater retention volume exceeds first flush retention volume by at least 20%.	2	
O-2b	Stormwater retention volume exceeds first flush retention volume by at least 40%.	4	
O-2c	Stormwater retention volume exceeds first flush retention volume by at least 60%.	6	
O-2d	Stormwater retention volume exceeds first flush retention volume by at least 80%.	8	
O-2e	Stormwater retention volume exceeds first flush retention volume by at least 100%.	10	
O-3	Re-use system for air conditioning condensate.	3	
O-4a	Use only native and/or drought-tolerant, low-water use plants for landscaping plantings with a Water Use of 1 or 2. The list of drought tolerant and native low-water use plants appropriate for Pima County is available at: http://www.azwater.gov/azdwr/WaterManagement/AMAs/documents/2010TAMA_apha_botanical_PLANTLIST.pdf	2	
O-4b	At least 50% of the parking spaces are adjacent to an 8 foot wide parking island planted with native drought tolerant trees that harvests and stores water from at a minimum the adjacent parking spaces.	2	
O-5	Prohibit the use of non-native plants and turf grasses.	1	
O-5b	Restrict construction of swimming pools, mister systems and other outdoor water features.	1	
O-6a	Design for pervious driveway and walkway surfaces, 2 points per 10,000 square feet.	2	

O-6a	Irrigation system designed and installed by a certified professional (e.g. EPA Watersense™).	1	
O-6b alt	Install an irrigation system with the following components: 1) Weather based irrigation controller or soil moisture sensor-based irrigation controller (e.g. EPA Watersense™). Controller shall have two watering schedules posted at the controller: a) for the initial grow-in period and b) for the established landscape. Controller shall be set to irrigate during the hours of 10 p.m. to 8 a.m.; 2) Turf spray heads, if installed, shall only be used for turf and shall achieve a lower quarter distribution uniformity (DULQ) of 65 percent or greater and contain check valves to prevent gravity drainage of water from heads; 3) Separate sprinkler zones for beds, with plants grouped based on watering needs (hydro zoning); 4) Drip irrigation for all non-turf planting beds.	2.5	
O-7a	Use only native drought-tolerant, low-water use plants for 25% of the Landscape Area * landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting: OR **	1.5	
O-7b	Use only native and/or drought-tolerant, low-water use plants for 50% of Landscape Area* landscaping plantings with a Water Use of 1 or 2 designed to be self-sustaining based upon water harvesting; OR	3	
O-7c	Use only native and/or drought-tolerant, low-water use plants for 75% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting; OR	4.5	
O-7d	Use only native and/or drought-tolerant, low-water use plants for 100% of Landscape Area* landscaping plantings with a Water Use of 1 or 2, designed to be self-sustaining based upon water harvesting.	6	
O-8	Complete a Parking Area Reduction Plan.	3	
O-9a	Maintain undisturbed buffer yards with native species landscaping with 50% of demand met with passive water harvesting.	2	
O-9b	Maintain undisturbed buffer yards with native species landscaping with 100% of demand met with passive water harvesting.	4	
O-10a	Avoid, other than incidental impacts, Flood Control Resource Area through use of cluster development, conservation subdivision, or modified development standards.	5	
O-10b	Avoid, other than incidental impacts, Flood Control Resource Area, developer mapped floodplains and Erosion Hazard Setback Areas through use of cluster development, conservation subdivision, or modified development standards.	10	
O-alt	Additional outdoor measures may be proposed by applicant.	#	
Sub-Total from Outdoor Options		94	0

Infrastructure Options

Inf-1	Relocate outside groundwater-dependent ecosystem or abandon active well(s) located in a groundwater-dependent ecosystem.	15	
Inf-2	Relocate outside groundwater-dependent ecosystem or abandon active well(s) located within a mile of a groundwater-dependent ecosystem.	7	
Inf-3	Seal off perched aquifers and recent alluvium in wells.	7	
Inf-4	Enhance native vegetation, including regulated riparian habitat, in on-site natural drainage patterns, using Low Impact Development and Green Infrastructure practices.	3	
Inf-5	Enhance groundwater recharge potential of detention basins in shallow groundwater areas.	5	
Inf-alt	Additional infrastructure options may be proposed by applicant.	#	
Sub-Total from Infrastructure Options		37	0
PROJECT TOTAL		126	0

* Landscape Area - Bufferyards and Common Area

To be Determined

PIWMP Water Demand Calculator Quick Reference Guide

Purpose: This spreadsheet is based upon the Arizona Department of Water Resources calculator used in Assured Water Supply applications. It has been modified for use by Pima County Regional Flood Control District staff to provide demand estimates for both the proposed and existing zoning. The difference between these estimates determines the water conservation points to be a recommended rezoning condition. At the time of development the applicant would need to achieve the total points indicated by the resulting rezoning condition. The array of conservation measures and associated points are shown on Tables A and B of the PIWMP Site Analysis Requirements. This attachment thereto is intended to demonstrate the methodology used. For questions or assistance please contact the Pima County Regional Flood Control District at (520)724-4600.

While numerous calculations are contained in the cells only those added to the ADWR Calculator for use as part of the Site Analysis PIWMP have been highlighted on the right.

Key:

Red boxes indicate items that must be filled in.

Green boxes indicate items that may be adjusted based upon the submittal.

Blue boxes are explanatory.

	A	B	C	D	E	F
1	September 6, 2017	PROJECT DEMAND CALCULATOR				
2	Name of Proposed Project:					
3	This worksheet is designed to provide water demand estimates based upon zoning class and project size for use by Pima County staff in evaluating rezoning requests for compliance with the Pima County Comprehensive Plan Water Policy. Should an applicant wish to provide their own estimates based upon project design and have questions regarding use of the worksheet please contact Pima County Regional Flood Control District at (520)724-4600.					
4						
5	AMA the subdivision is located in*:	Tuc				
6	If you are not sure if you are located inside or outside of an AMA, contact the Office of Assured and Adequate Water Supply at (602) 771-8599.					
7						
8	Project Size in Acres	10.00				
9	Yield after common area	8.50				
10	PC Zoning Lots per acre	0.30				
11	Lot Yield	2.57				
12	Interior Residential Usage					
13	Category	PPHU	GPCD or per house/day	Demand/HU/YR (af/yr)	No. HU (Lots)	Residential Demand/Yr (af/yr)
14	Single Family	2.49	45.00	0.13	2.6	0.32
15	Multi-Family	2.49	45.00	0.13	0.00	0.00
16						
17	Single Family Exterior Residential Usage					
18		Square Feet	Acres	Demand Factor (af/yr)	No. HU (Lots)	Large Lot Adjustment Demand/Yr (af/yr)
19	Maximum Lot Size per Zoning Code*	144000.00	3.31			
20	Landscape Area After Pad Adjustment**	141000.00	3.24			
21	85% low water use***	119850.00		1.50	2.57	10.61
22	15% turf***	21150.00		4.60	2.67	5.74
23	Multi-Family Exterior Residential Usage					
24	Multi-Family Landscape	Number of Units	GPCD or per house/day			
25		0.00	21.00	0.00	0.00	0.00
26	*Alternately proposed average lot size may be used.					
27	**If CC&Rs with pad size restrictions for the residential lots will be adopted, a modified building pad adjustment can be calculated.					
28	***If CC&Rs with landscaping restrictions for the residential lots will be adopted, landscape type ratios can be modified.					
29	Contact the Pima County Regional Flood Control District for assistance if CC&Rs limiting landscaping within the residential lots will be adopted.					
30						
31	Total Residential Demand					16.68
32						
33	Non-Residential Usage					
34						
35	For each category please enter either square feet or acres of land for that type of non-residential use within your subdivision.					
36						
37	Category	Square Feet	Acres	Demand Factor (af/ac)		Non-Residential Demand (af/yr)
38	No Water Use Common Area		0.00	0.00 no water use		0.00
39	Low Water Use Common Areas (Xeriscape)		1.50	1.50 low water use		2.25
40	High Water Use Common Areas (Turf)		0.00	4.60 turf		0.00
41	Commercial use		0.00	2.25 all acres		0.00
42	Public Pool (length x width = square feet)		0.00	Based on closest AMA pool		0.00
43	Total common area		1.50			
44						
45	***NOTE: If your application is for a change of ownership from a previously issued Certificate of Assured Water Supply, and is for only a portion of the original Certificate, contact the Office of Assured and Adequate Water Supply to pro-rate non-residential area acreage.					
46						
47						
48	Total Non-Residential Demand					2.25
49						
50	Distribution Losses					
51		Residential	Non-Residential	Total	Loss Factor %	Distribution Losses (af/yr)
52	Demand af/yr	16.68	2.25	18.93	10.00	1.89
53						
54	Construction					
55		No. of Lots	Demand (gals/lot)	100 yr demand (af)		Construction Demand (af/yr)
56		2.57	10000.00	0.28		0.00
57	Total Demand Per Year					
58	Residential Usage af/yr	Non-Residential Usage	Lost & Unaccounted for	Construction	Total Non-Res	Total Demand Per Year (af/yr)
59	16.68	2.25	1.89	0.00	4.15	20.82
60	Residential Usage GPCD					Total Demand GPCD
61	2325					2903
62	Annual Build Out Demand					
63	20.82					
64						

Fill in project name and save.

"Tuc" has been entered and water demand rates established by ADWR associated with the Tucson AMA are populated in all cells where a rate is indicated.

Fill in space B8 with total project acres.

Calculated by subtracting the sum of common area from cell C43 from the project size entered in cell B8.

Calculated by dividing 43,560 square feet by the maximum lot size from cell B19.

Calculated by multiplying cells B9 and B10.

Default is 2.49 but may be adjusted for proposed development.

Fill in maximum lot size per zoning or PDP.

Cell B20 is calculated by subtracting a 3000 square foot building envelope from the lot size entered in cell B19 as it is assumed this area will not be landscaped.

As a baseline assumption the percentage of individual lots to be low water demand landscape is calculated by multiplying cell B20 by 0.85.

As a baseline assumption the percentage of individual lots to be high water demand landscape is calculated by multiplying cell B20 by 0.15. Alternately the applicant may provide landscape figures based upon the PDP including building envelopes and Covenants for use in the proposed zoning demand estimate.

Unless specified by the applicant 15% of the total project acreage is assumed to be in low water use common area. Leaving the default for both existing and proposed zoning ensures consistency in the estimates provided. Alternately the applicant may provide common area figures based upon the PDP for use in the proposed zoning demand estimate.

Attachment B

Optional Revised Requirements for Large Projects

The following requirements may be substituted for those within the site analysis checklist for those rezoning and specific plan requests for projects that meet the following criteria (does not apply to Cluster Development Option submittals to the Design Review Committee):

1. At least 320 acres in size.
2. A single master block plat or a series of block plats to be submitted in conjunction with project phasing for the entire project.
3. A development agreement to be entered into between the property owner and the County.
4. The development to consist of multiple phases.
5. The development may include residential, non-residential uses or mixed uses.

At the time of either the master block plat submittal or each block plat submittal if more than one block plat is to be submitted, the property owner/developer will be required to provide the more detailed information required by the site analysis checklist for the area covered by the block plat with the submittal of the block plat. The information needs to be found substantially complete by staff and to be found consistent with the preliminary development plan approved with the rezoning. Alternatively, if the information provided with the block plat necessitates a substantial change to the preliminary development plan approved by the Board of Supervisors at public hearing, the project will need to be reviewed at public hearings before the Planning and Zoning Commission and the Board of Supervisors. This shall become a condition of rezoning. The following sections may be revised; the information required for all other sections of the site analysis checklist must be provided.

- II-A Project Overview - Provide only a general discussion of the following:
Section II-A.3 – Conformance with the applicable zoning districts (this does not apply to amendments to Section 18.90.050).
Section II.A.2f - Facilitate the use of active and/or passive solar systems and solar access, as well as other sustainability and green building measures.
- II-B Preliminary Development Plan
II.B.1b - A map showing the location of the different development districts (e.g. commercial, mixed-use, low-density residential, open space, etc). The applicant, however, should consider providing more detailed conceptual plans for how these various districts would develop.
II.B.1b - A range of the amount of proposed non-residential development.
II.B.1i - Show exterior and roadway buffers.
- II-C Topography and Grading
A general discussion of how the proposed project will address sections 1-3. Section 4 can be met solely with the block plat.
- II-D Hydrology - A general discussion of how the proposed project will address these requirements.
- II-F Landscape and Buffer Plan
II.F.1 - Map and label the bufferyards to be used along the project perimeter and major internal roads (arterials and major collectors).
If known, map and describe any known or proposed easements, setbacks, rights-of-way or other potential conflicts in areas proposed for bufferyards or natural open space.
- II-I Sewers – Describe in general:
II-I.4 - Methods that will be used to address all site constraints to providing gravity sewer service identified in Section I.F.2.

Attachment C

PIMA COUNTY DEVELOPMENT SERVICES



Pima County Residential Green Building Program

Attachment D

Thresholds for Requiring Traffic Impact Studies