"The Development of Black Acre"

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I. BACKGROUND

Blade 'N Build Development Company is proposing a master-planned community for its 720-acre parcel known as Black Acre. See, Figure 1. Black Acre is in an unincorporated area of Maricopa County and is within the Phoenix active management area ("AMA"). Nearby are both an incorporated city and a private water company. The depth to groundwater is 800 feet. Three hundred twenty acres are farmed and have irrigation grandfathered groundwater rights. The only readily available water supplies for Black Acre are groundwater and, eventually, effluent produced by the development.

Blade 'N Build, being an astute development company, has decided that a championship golf course should be an integral part of Black Acre. Blade 'N Build=s planners have indicated that under the current zoning, they should be entitled to build approximately 1900 residential dwelling units. For the remainder of the property, Blade 'N Build has planned for some commercial development, one school, and two parks.

In developing Black Acre, Blade 'N Build will have several water-related issues that must be addressed. These issues can be distilled, in large part, to three categories: (1) golf course issues, (2) assured water supply issues, and (3) providing water and sewer service for the development.

II. GOLF COURSE ISSUES

A. Golf Course Water Allotment

Within the Phoenix AMA, if any groundwater will be used on the golf course, the amount of water that can be used on the course will be subject to the restrictions of the Management Plan for the Phoenix AMA.1

1 Management plans for the AMAs are promulgated by the Arizona Department of Water Resources ("ADWR") and generally cover ten-year increments. See, A.R.S. ' ' 45-564.A, -565.A, -566.A, - 567.A, and -568.A. The Phoenix AMA currently is operating under the Second Management Plan, covering the period 1990 through 1999. The Third Management Plan was adopted by ADWR on June 18, 1999. See, ADWR, Order of Adoption (6/18/99). Several

The Third Management Plan for the Phoenix AMA includes an Industrial Conservation Program. See, Third Management Plan, Phoenix AMA, ch. 6 (June 1999) ("TMP" or the "Management Plan"). Golf courses are defined as "turf-related facilities" and are regulated under the Industrial Conservation Program. See, TMP ' 6-301.26. "Turf-relate facility" means any facility, including cemeteries, golf courses, parks, schools, or common areas within housing developments, with a water-intensive landscaped area of 10 or more acres. Id. The purpose of the program is "to move industrial users within the Phoenix AMA to the greatest level of water use efficiency economically attainable given the use of the latest available water conservation technology." TMP ' 6.1. Consideration of a reasonable economic return was mandated when the legislature instructed the Arizona Department of Water Resources (hereinafter "ADWR") to develop conservation requirements for industrial uses within the initial AMAs. A.R.S. ' 45-566.A.2.

Under the Second Management Plan (effective through the end of 1999) and the TMP, a golf course=s total annual water allotment is based on the amount of turf, low water use landscaping and lake area present at the golf course. See, TMP ' 6.3.4.1.1. The maximum permissible acreage and the associated water allotment for an 18-hole regulation golf course in the Phoenix AMA are set forth in the following table:

Type	**Acres**	**Water Duty**	**Total**
Turf	90	4.9 a.f.	441 a.f.
Low water use plants (or additional turf)	60 (30)	1.5 a.f. (3 a.f.)	90 a.f. (90 a.f.)
Lakes	2.5	6.2 a.f.	15.5 a.f.
		TOTAL	546.5 a.f.

TMP ' 6-305.B.

There are a handful of exceptions that may modify the golf course water allotment. For example, an additional acre-foot per acre of turf is allowed in the first year that the turf is planted, for grow-in purposes. TMP ' 6-306.A. Under certain conditions, an additional allotment of up to 1.5 acre-feet per acre per year, for up to three years, may be allowed for revegetative purposes after initial construction or renovation of the golf course. TMP ' 6-306.B. If the water supply used for landscape watering exceeds 1,000 milligrams per liter of total dissolved solids, an additional allotment for leaching purposes may be granted. TMP ' 6-306.D. This leaching allotment additions will remain in effect as long as the amount of the total dissolved solids in the water supply remains above the 1,000 milligrams per liter threshold. Id. In addition, if the golf course lakes are filled and refilled entirely with effluent, more than 2.5 acres of lakes

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persons filed motions for rehearing or review of the Third Management Plan. The rehearing and review record was closed on November 15, 1999 and the ADWR director=s decisions are expected to be issued by December 31, 1999. After the director has issued decisions on all of the motions, she will issue a second order of adoption and publish notice of that order once each week for two consecutive weeks. The Third Management Plan will become final after the second order of adoption is published for the final time. The Third Management Plan will continue through 2009, or until the fourth Management Plan is promulgated. See, A.R.S. ' 45-566.A.

are allowed. TMP Table 6-305-2, fn.2. In Black Acre=s case, since effluent will not be available in the early years, the course will be limited, at least initially, to 2.5 acres of lakes.

The use of effluent on the course has additional benefits, in that under the Phoenix AMA TMP, each acre-foot of effluent used only will count as 0.6 acre-feet. TMP ' 6-309.A. As a result, a golf course using effluent can use more water (effluent) than its water allotment and still be considered to be in compliance with Management Plan limitations.

Beginning in 2002, flexibility accounts for golf courses will be established. TMP ' 6-309.B.1. These accounts will accrue credits if actual water use is less than the golf course=s maximum annual water allotment. TMP ' 6-309.B.2.a. Conversely, a particular golf course=s account will be debited if the actual water use exceeds the golf course=s maximum annual water allotment. TMP ' 6-309.B.2.b. For purposes of determining whether a particular golf course is in compliance with its maximum annual water allotment, the account balance carries forward from one year to the next. TMP ' 6-309.B.3. The total balance in the account, however, may never deviate from the golf course=s maximum annual water allotment by more than 20%. TMP ' 6-309.B.3.a -.b.

Finally, there are significant and detailed monitoring and reporting requirements imposed on golf courses. See, TMP ' 6-310.

B. Local Limitations on Golf Course Water

Maricopa County and several of the cities within the Phoenix AMA have adopted additional restrictions on golf course acreage and water allotments. In Black Acre=s case, if Blade 'N Build decides not to annex the property into the nearby city, the Black Acre golf course will be subject to Maricopa County=s ordinance regarding golf courses. The ordinance provides:

> If a common area over ten (10) acres in size, a lake or a golf course requiring irrigation is proposed within a subdivision or a Development Master Plan, one hundred percent (100%) of the water used to fill or refill the lake, and irrigate the golf course and common area shall be a renewable supply of water, such as treated effluent, surface water or Central Arizona Project (CAP) water. A plan shall be submitted that includes a schedule which ultimately provides for one hundred percent (100%) use a renewable supply of water to fill, refill, or irrigate the facilities noted above. A renewable water supply must be used during each phase of the project and at the completion of the project. The facilities subject to this regulation shall be designed and constructed to facilitate the use of treated effluent. The Plan approved by the Board of Supervisors may provide for the interim use groundwater in conjunction with the use of a renewable supply of water during the development phases of the project. The Plan approved by the Board of Supervisors may also allow for:

1. The use of groundwater in the event of a threat to public health and safety, only if the additional use of groundwater will reduce the risk of a public health and safety hazard and all other actions would not reduce the risk.

2. The use of groundwater to leach soil to maintain turf, provided there is no other available source of water that achieves the same result.

3. The use of non-potable groundwater.

4. The plan may also provide for the use groundwater in subdivisions or Master Planned Communities where the seasonal occupancy of the residents will cause a seasonal fluctuation in the availability of treated effluent.

This regulation may exceed but is not intended to conflict with State law or State mandated regulations regarding the use of water in filling and refilling lakes. Conflicts that may arise shall be decided by the [Maricopa County Department of Planning and Development] Director in favor of State law or State mandated regulations.

Maricopa County Subdivision Regulations, ' 309 (12/10/90).

In our case, we will assume that the nearby city has no special ordinance related to golf course water use. However, many cities, such as Phoenix, Mesa, and Scottsdale have ordinances which both restrict turf and lake acreage and/or preclude groundwater or potable water from being used for a golf course.

C. Water Sources for Golf Course

1. Groundwater

In Black Acre=s case, no effluent is available, other than the effluent that eventually will be produced by the development. Therefore, it will be necessary to use groundwater on the Black Acre golf course, at least in the early years.

There are two potential sources of groundwater to serve the golf course. Groundwater may either be provided by the water provider serving the development or by a well owned and operated by the golf course. Each source presents a separate set of issues.

a. Service from Water Provider

Water service for the golf course from a municipal water provider, either private or public, is relatively simple from a legal perspective. The provider simply delivers the water. However, the water

provider may be reluctant to serve a golf course because of the gallons per capita per day ("GPCD") limitations imposed on the provider by the Management Plan. Each provider within the Phoenix AMA is assigned a GPCD. See, TMP, ch. 5. The addition of a large water user, such as a golf course, may cause the water provider to be unable to meet its GPCD requirement. As a result, the water provider may not want to serve the golf course.

From the developer=s standpoint, water service from the water provider may present a much more practical problem: cost. The cost of purchasing water from a water provider is often much higher than serving the golf course from a privately owned well.

b. Self-service from a Well

Serving the golf course from a well has its own set of problems. In order for an individual user to withdraw and use groundwater, the user must have a right to withdraw the water. Within an AMA, there only are three types of rights that are potentially available for golf course water withdrawals. They include Type 1 nonirrigation grandfathered groundwater rights, Type 2 nonirrigation grandfathered groundwater rights and industrial use permits.

A Type 1 right can be created by converting an irrigation grandfathered right into a Type 1 right. A.R.S. ' 45-469. As you will recall, Black Acre happens to have 320 acres of irrigation grandfathered right. In order to convert the irrigation grandfathered right into a Type 1 right, the following requirements must be met:

1. The land must be outside of the exterior boundaries of the service area of a city, town, or private water company;

2. The land must be held in the same ownership as the last owner who irrigated the property;

3. A development plan for the proposed non-irrigation use must exist and be approved by ADWR within a reasonable time before or after the land is retired;

4. The land has been or will be retired for the bona fide purpose of conserving or using water for a non-irrigation use which would otherwise continue to be used for irrigation of such land; and

5. The land has not been sold or taken out of production primarily because it would have been uneconomical to continue to withdraw water for irrigation.

A.R.S. ' 45-469.A and .B. We will assume that for purposes of Black Acre, all of these requirements can be met.

When an irrigation right is converted into a Type 1 right, the amount of groundwater which may be withdrawn annually per acre is the lesser of:

1. The current maximum amount of groundwater which may be used pursuant to the irrigation grandfathered right for the acre at the time it is retired; or

2. Three acre-feet multiplied by the water duty acres in the farm in which the acre to which the right is appurtenant is located, divided by the number of irrigation acres in the farm.

A.R.S. ' 45-469.F. In practice, the Type 1 right generally will amount to approximately 2.8 acre-feet per acre. Assuming that to be the case with respect to Black Acre, with 320 acres of irrigation right, the maximum Type 1 right would equal approximately 896 acre-feet.

With a Black Acre golf course demand of slightly less than 547 acre-feet, it may appear that the Black Acre Type 1 right will be more than adequate for the golf course. This may or may not be true.

Type 1 rights are appurtenant to the land. A.R.S. ' 45-463.E. The only portion of the Type 1 right that will be available for use on the golf course by a subsequent owner of the golf course is the portion appurtenant to the golf course acres held in the same ownership. Fortunately, the golf course acres include all of the golf course property held in the same ownership, such as the club house and parking areas held under the same ownership. With that in mind, Black Acre would need approximately 195 gross acres (547 a.f.) 2.8 a.f.) associated with the golf course, all of which must be located on the Type 1 acres, in order to serve the course entirely with groundwater. See, Figure 2.

Blade 'N Build determines that this is far too much acreage to devote to the golf course. In addition, the location of the Type 1 acres is not the optimum location for the golf course. See, Figure 3. As designed, the golf course will only contain approximately 90 acres of Type 1 right, with a resulting groundwater allotment of 252 acre-feet. This leaves a shortfall of 294.5 acre-feet that must be covered either by a Type 2 right or by a general industrial use permit.

Type 2 rights are among the most flexible of all groundwater rights in the AMAs. They can be transferred, moved, leased or sold and can be exercised from virtually anywhere within the AMA, subject only to well spacing requirements. A.R.S. ' 45-464, -471, and -474; see also, ADWR Order, adopting temporary well spacing rules (3/11/83). The only problem is that they can no longer be created. See generally, A.R.S. ' 45-464.A. The only Type 2 rights are those which already exist, so the key becomes finding a right to purchase or lease. It is relatively simple to find a Type 2 right to lease for a short duration. The going rate to lease a Type 2 right is $100 per acre-foot per year. It is more difficult to find a Type 2 right to purchase and it is considerably more expensive. In the past several years, $1,000 per acre-foot has been a fairly standard price, although there have been sales both higher and lower than that amount.

Another option, and one that is significantly cheaper than a Type 2 right, is a general industrial use permit. In order to obtain a general industrial use permit to withdraw groundwater from a point outside the exterior boundaries of the service area of a municipal water provider, application must be made to the ADWR and the following conditions must be met:

1. Uncommitted municipal and industrial CAP water is not available at the point where the operator=s wellhead or distribution system would otherwise be, at a cost which does not exceed the current municipal and industrial CAP rates.

2. Other surface water of adequate quality or effluent of adequate quality is not available at the point where the operator=s wellhead or distribution system would otherwise be, at a cost, including treatment costs, which does not exceed by twenty-five per cent the cost the operator would otherwise incur in withdrawing groundwater.

3. Irrigation grandfathered rights appurtenant to acres of land in reasonable proximity to the intended general industrial use are not available for purchase at a reasonable price or cannot be acquired by eminent domain and the applicant does not own or lease grandfathered rights that the applicant is not using or leasing, that may be used for the intended general industrial use and that can be used for the intended general industrial use without imposing an unreasonable economic burden on the applicant.

4. The intended general industrial use, if located within three miles of the exterior boundaries of the service area of a city, town or private water company, has been denied service by the city, town or private water company at the customary rate in the customary manner.

5. The Management Plan for the active management area can be adjusted to accommodate the intended general industrial use consistent with the achievement of the management goal for the active management area.

6. There is an assured water supply for the intended use at the intended point of withdrawal. ADWR may waive this requirement if ADWR is unable to determine if there is an assured water supply because of hydrogeologic conditions underlying the point of withdrawal. For purposes of this section, "assured water supply" means that sufficient groundwater of adequate quality will be available to the applicant to satisfy the projected general industrial use for the duration of the permit.

7. If a new well or replacement well at a new location is to be constructed, a permit for the well has been issued pursuant to ' 45-599.

A.R.S. ' 45-515.A. Although A.R.S. ' 45-515.B allows general industrial use permits to be granted for a period of up to 50 years, ADWR generally does not issue them for longer than ten years. They may be renewable, however.

Since Blade 'N Build anticipates having effluent available at some point, either a Type 2 lease or a general industrial use permit may be appropriate.

2. Effluent Recharge and Recovery

Ultimately, it is expected that the golf course will be served with effluent. The first consideration for Blade 'N Build will be to assure that the wastewater treatment provider will agree to supply effluent to the golf course. This need for assurance may influence Blade 'N Build=s selection of a water and wastewater service provider.

Assuming that Blade 'N Build is assured of receiving any effluent that is produced by the development, it will be necessary to obtain a wastewater reuse permit for the direct use of effluent on the Black Acre golf course. A.R.S. ' 45-203.A.6; A.A.C. ' R18-9-702.I. At present, such permits require application to the Arizona Department of Environmental Quality ("ADEQ") either by the individual user or by the wastewater treatment facility. Id. ADEQ is in the process of drafting general permits (by rule) that should streamline the reuse permitting process considerably. We anticipate that general permits for reuse for effluent on golf courses will be available sometime in 2000.

In addition, if effluent is to be used on the course, there often is difficulty with the timing of the availability of effluent and the golf course=s demand. For example, effluent typically is more plentiful in the winter months, while the prime golf course demand is in the summer months. If this is the case, as we believe it will be for Black Acre, it may be necessary to recharge the effluent in the winter and recover the effluent credits in the summer from a well or wells serving the golf course.

In order to recharge and recover effluent, four permits will be required. The first is an aquifer protection permit. A.R.S. ' 49-241. This permit is issued by the ADEQ. It is designed to insure that the water is of adequate quality and to provide for adequate monitoring and reporting to protect the groundwater aquifer where the recharge is occurring. Id.

The other three permits, issued by ADWR, relate to the recharge facility and the recovery wells. First, it is necessary to obtain an underground storage facility permit. A.R.S. ' 45-811.01. This permit relates to the recharge facility itself, whether it consists of spreading basins, injection wells, recharge trenches or a natural streambed. The second permit is a water storage permit. A.R.S. ' 45-831.01. This permit relates to the particular amount and source of water being stored. The third permit is a recovery well permit, which allows for the recovery and use of stored effluent credits. A.R.S. ' 45-834.01.

III. ASSURED WATER SUPPLY

A. Need Certificate of Assured Water Supply to Sell/Lease Subdivided Lands in an AMA

Any person proposing to offer subdivided lands for sale or lease in an AMA must either receive water service from a water provider designated as having an assured water supply or apply for and obtain a certificate of assured water supply from ADWR.2 A.R.S. ' 45-576.A. A subdivision or subdivided lands are defined as :

2 Golf courses are generally not considered to be a subdivision.

> [I]mproved or unimproved land or lands divided or proposed to be divided for the purpose of sale or lease, whether immediate or future, into six or more lots, parcels or fractional interests. Subdivision or subdivided lands include a stock cooperative and include lands divided or proposed to be divided as part of a common promotional plan. This paragraph shall not apply to leasehold offerings of one year or less or to the division or proposed division of land located in the state of Arizona into lots or parcels each of which is, or will be, thirty-six acres or more in area including to the center line of dedicated roads or easements, if any, contiguous to the lot or parcel and provided further that this definition shall not be deemed to include the leasing of agricultural lands, or of apartments, offices, stores, hotels, motels, pads or similar space within an apartment building, industrial building, rental recreational vehicle community, rental manufactured home community, rental mobile home park or commercial building, except that residential condominiums as defined in Title 33, Chapter 9 shall be included in this definition, nor shall this definition include the subdivision into or development of parcels, plots or fractional portions within the boundaries of a cemetery that has been formed and approved pursuant to this chapter.

A.R.S. ' 32-2101.54. If a certificate of assured water supply is required, the certificate of assured water supply must be obtained before presenting the subdivision plat for approval to the city, town or county in which the land is located and before filing with the state real estate commissioner a notice of intention to offer such lands for sale or lease. Id. As previously indicated, a subdivider who obtains a written commitment of water service for the subdivision from a city, town or private water company having a designation of an assured water supply need not obtain a certificate of assured water supply. Id.

A city, town or county may approve a subdivision plat only if the subdivider has obtained a certificate of assured water supply or a written commitment of water service from the holder of a designation of assured water supply. A.R.S. ' 45-576.B. The appropriate platting authority must note on the face of the approved plat that either a certificate of assured water supply or written commitment of water service from the holder of a designation of assured water supply has been submitted therewith. Id. The state real estate commissioner may issue a public report authorizing the sale or lease of subdivided lands only if the subdivider, owner, or agent has obtained a certificate of assured water supply or a written commitment of water service from the holder of a designation of assured water supply. A.R.S. ' 45-576.C.

In our case, neither the nearby city nor the private water company are designated as having an assured water supply.

B. Assured Water Supply Requirements

1. Background

Arizona statutes and administrative rules contain provisions designed to require that any new residential subdivisions within the state=s AMAs have an assured water supply. An assured water supply means that sufficient groundwater, surface water or effluent water of adequate quality will be continuously available to satisfy the water needs of the proposed use for at least one hundred years. A.R.S. ' 45-576.I.1. In order to prove an assured water supply, the applicant must show that the projected groundwater use is consistent with the Management Plan and achievement of the management goal for the AMA. A.R.S. ' 45-576.I.2. The applicant also must demonstrate the financial capability it has to construct the water facilities necessary to make the supply of water available for the proposed use, including a delivery system and any storage facilities or treatment works. A.R.S. ' 45-576.I.3.

Administrative rules implementing the assured water supply requirements went into effect on February 7, 1995. The assured water supply rules are compiled at A.A.C. '' R12-15-701 through -715.

In order to make application for a certificate of assured water supply, the developer will need to compile a variety of information. One of the most burdensome of these requirements is that the developer must submit a preliminary plat of the development with the certificate of assured water supply application. See, A.A.C. ' R12-05-702.A.1.e. This means that the developer must be very close to actually platting the development before an application for a certificate of assured water supply can be made. Unfortunately, the time lapse between being ready to plat and develop the property and receiving a certificate of assured water supply may be several months.

In addition, the application must include projected water demands for the development, along with a hydrology study supporting the projections and the availability of the proposed water source. A.A.C. ' R12-15-702.A.1.i. and .o.

In the case of Black Acre, there are the following projected demands:

a. Residential and Commercial: 950 acre-feet per year

This projection is based on 0.5 acre-feet per year per housing unit, which includes an increment for right-of-way landscaping, commercial, one school and system losses.

b. Golf Course: 546.5 acre-feet per year

See discussion at ' II.A., *supra*.

c. Parks: 29.4 acre-feet per year

This projection is based on two 3-acre parks, using 4.9 acre-feet per acre.

The total demand for Black Acre is set forth in the table below:

	Annual	**100 Year**
Residential & Commercial	950	95,000

Golf Course	546.5	54,650
Parks	29.4	2,940
TOTAL	1525.9 a.f.	152,590 a.f.

2. Application

An application for a certificate of assured water supply for a proposed development shall provide the following information on a form prescribed by ADWR:

a. Name, telephone and address of the applicant who must be the owner of the subdivision. If the holder of an ownership interest is a corporation, partnership or trust, a statement naming the type of entity and listing the interest and extent thereof of each principal having a 10 percent or more financial interest in the entity.

b. Name of the proposed development.

c. Name, address and telephone number of the municipal provider proposed to serve the development and the applicant=s technical consultant.

d. Number of lots and housing units projected within the proposed development.

e. A copy of the proposed development=s plat or unplatted development plan and a map showing the development=s geographical coordinates and indicating the location of the proposed water distribution system and treatment works.

f. Total acreage of and size of lots in the proposed development.

g. The anticipated schedule for the proposed development to reach build-out and an annual projection of water demand until build-out.

h. Proposed water uses of the proposed development.

i. Projected annual water demand per lot or housing unit at build-out for the following categories, and a schedule for completion of facilities associated with each category:

1) Single family housing units;

2) Multifamily housing units;

3) Nonresidential uses, excluding turf-related facilities and new large cooling users;

4) Turf-related facilities;

5) New large cooling users; and

6) Other uses which impact the projected annual water demand.

j. A water supply plan.

k. Information required to project annual lost and unaccounted for water associated with the development.

l. A description of the landscaping to be planted in public rights-of-way associated with the development.

m. Projected average number of persons per household for the development for the following categories:

1) Single family housing units;

2) Multifamily housing units;

n. Method of distributing water to the development.

o. A hydrologic study.

p. A copy of a notice of intent to serve agreement between the owner of the development and a municipal provider proposed to serve the development.

q. A copy of any agreement for the delivery of specific sources of water to the development.

r. A copy of any subcontract with Central Arizona Water Conservation District.

s. Evidence, consistent with the requirements established in R12-15-703, of any legal right to use the proposed sources of water for the development.

t. If the municipal provider proposed to serve the development is a private water company, evidence of the company=s certificate of convenience and necessity as approved by the Arizona Corporation Commission.

u. Evidence of financial capability to construct the delivery system and any necessary treatment works and storage facilities for the development.

v. A drought response plan, if required.

w. If the applicant qualifies as a member land of CAGRD as provided in A.R.S. Title 48, Chapter 22, or a water district member land of an AMA water district as provided in A.R.S. Title 48, Chapter 28, evidence of such membership.

A.A.C. ' R12-15-702.A.1. ADWR also may require a certificate of assured water supply applicant to submit any other information which is necessary to make a determination of whether an assured water supply exists for the applicant. A.A.C. ' R12-15-702.A.3. The application also must include a sworn statement avowing that the information contained therein is true and correct to the best knowledge of the applicant. A.A.C. ' R12-15-702.A.4.

A certificate of assured water supply application must be signed by the individual owner, if a sole proprietorship, or an authorized corporation officer, partner or trustee as applicable. A.A.C. ' R12-15-702.B. If the application is submitted on behalf of a corporation, a copy of the resolution authorizing the person signing to do so on behalf of the corporation also must be submitted. Id. The priority date for a certificate of assured water supply application is the date that a complete and correct application is filed with ADWR. A.A.C. ' R12-15-702.G.

3. Notice, Objections, Hearing and Review

ADWR must publish notice of the application for a certificate of assured water supply once each week, for two consecutive weeks, in a newspaper of general circulation in the AMA. A.R.S. ' 45-578.A. The first publication must occur within 15 days after the application is determined to be complete and correct, or at any earlier time as the applicant may request after the application is determined to be complete. Id. If the application is substantially changed after notice of the application is published, notice of the application, as modified, must also be published. Id.

The published notice must state that any objections to the issuance of the certificate may be filed by residents of the AMA, in writing and within 15 days after the last publication date. A.R.S. ' 45-578.B. Any objections must include the name and mailing address of the objector, be signed by the objector or the objector=s agent or attorney, and clearly set forth the reasons why the certificate should not be issued. Id. The grounds for objection are limited to whether the certificate application meets the criteria for determining an assured water supply. Id.

In appropriate cases, an administrative hearing may be held before ADWR=s decision on the application if ADWR deems such a hearing necessary. A.R.S. ' 45-578.C. Thirty days prior to the hearing, ADWR must give notice of the hearing to the applicant and to any person who filed a proper written objection to the issuance of the certificate. Id. The hearing is to be scheduled not less than sixty days nor more than ninety days after the expiration of the time in which to file objections. Id.

Upon finding that an assured water supply exists for the proposed use, ADWR must issue the certificate to the applicant. A.R.S. ' 45-578.D. Upon finding that an assured water supply does not exist, ADWR must deny the application and return it to the applicant. Id. An aggrieved party or a person who contested a certificate by filing a proper objection may seek judicial review of the final decision of ADWR. A.R.S. ' 45-578.E.

Once the application for a certificate of assured water supply is filed, the maximum overall time frame Blade 'N Build can expect for the process is approximately seven months. See, A.A.C. ' R12-15-401, Table A. ADWR=s review of the completeness of an application can take up to approximately

five months. Id. ADWR=s substantive review of the application can take up to approximately two months. Id. If a hearing is appropriate, the overall time frame can increase by approximately four months. A.A.C. ' R21-5-401.5.

4. Water Availability

An application for a certificate of assured water supply only may be approved if ADWR determines that the applicant will have sufficient supplies of groundwater, surface water or effluent which are physically, continuously and legally available to meet the applicant=s 100-year projected water demand. A.A.C. ' R12-15-703. In the case of Black Acre, we only are concerned with groundwater, and perhaps, effluent and effluent credits.

a. Physical Availability

(1) Groundwater

With respect to the determination of whether a certificate of assured water supply applicant will have a sufficient supply of water which will be physically available to satisfy its 100-year projected water demand, if the proposed source of water is groundwater, ADWR must determine the volume of groundwater which will be available for the proposed use. A.A.C. ' R12-15-703.B.1.a. Groundwater is considered physically available in the Phoenix AMA only if the groundwater is to be withdrawn from depths not to exceed 1,000 feet below the land surface over the period of 100 years. A.A.C. ' R12-15-703.B.1.c.

In determining the volume of groundwater available to the applicant, a hydrologic study must be submitted which accurately describes the hydrology of the affected area using a methodology approved by ADWR. A.A.C. ' R12-15-703.B.1.b. The 100-year depth-to-static water level is determined by adding:

1. The depth-to-static water level as on the application date;

2. The projected declines caused by existing demand;

3. The projected decline from committed demand and other lots for which an analysis of assured water supply has been issued, less projected demand for subdivisions whose plats have been abandoned; and

4. The projected decline that will result from the proposed use in the certificate of assured water supply application

A.A.C. ' R12-15-703.B.1.d.

At Black Acre, you will recall that the depth to groundwater is already at 800 feet below ground surface ("bgs"). See, Figure 4. That means that the supporting hydrology study must show that, after taking into account the existing and committed demand in the area, the projected demand will not

cause the water table to drop below 1,000 feet bgs after 100 years of pumping. Because the water table is already 800 feet bgs, this is likely to be a significant issue for Black Acre.

(2) Effluent

If the proposed source of water is effluent which is to be used directly, ADWR must estimate the annual volume by evaluating the current, metered production or the projected production of effluent. A.A.C. ' R12-15-703.B.5.a.i. ADWR also must limit the annual volume of effluent calculated to be available to the certificate of assured water supply applicant to the applicant=s projected annual demand for the direct use of the effluent. A.A.C. ' R12-15-703.B.5.a.ii. The applicant=s proposed effluent use also must be in accordance with any water quality requirements established by ADEQ. A.A.C. ' R12-15-703.5.b.

Arguably, the availability of effluent is not relevant to a certificate of assured water supply application for Black Acre, because it will only be used on the golf course. The golf course is not being subdivided, so the assured water supply requirements do not apply to it. However, for purposes of this paper, we will assume that it is important to show that the golf course will not use groundwater, because if it did, the water table would drop below 1,000 feet.

In the case of Black Acre, we will use a conservative estimate that 60 percent of the residential and commercial water use will be available as effluent. You will recall that the projected annual demand for residential and commercial uses within Black Acre is 950 acre-feet. At 60 percent, approximately 570 acre-feet of effluent will be available annually, once the project is at full buildout. This is fortunate, since the golf course demand is 546.5 acre-feet.

(3) Recovered Storage Project Water

Unfortunately, much of Black Acre=s effluent will be available in the winter and the golf course needs more effluent than is available in the summer. A recharge project will be necessary to make the effluent supply available in the summer months.

If the proposed source of water is recharge credits for water recovered from a storage project the volume of water available for 100 years is calculated by totaling the storage credits existing on the date of application. A.A.C. ' R12-15-703.B.6.a. However, since Black Acre will have little or no effluent to store in a storage project in the early years of the development, there will be no storage credits available to Blade 'N Build at the application date. If Blade 'N Build proposes to use credits for stored water which do not exist at the application date, the following will be evaluated in determining whether to include the proposed credits in calculating the volume of the Blade 'N Build=s proposed supplies:

1. The terms of any contract to obtain water to store in a storage project.

2. The physical, continuous, and legal availability of the water proposed to be stored or the in lieu water;

3. The presence of an existing storage project which will be available for use for the proposed storage;

4. The existence of all required permits of an adequate duration.

A.A.C. ' R12-15-703.B.6.b.

Again, the use of the recharge credits ought not be relevant, since they would be used on the golf course and the golf course is not being subdivided. The information is included in this paper simply to illustrate some of the types of criteria that must be met if recharge credits are part of an assured water supply portfolio.

b. Continuous Availability

ADWR also must determine whether the proposed supply of water will be continuously available to the certificate of assured water supply applicant for the requisite 100 years. A.A.C. ' R12-15-703.C. In doing so, ADWR must determine whether the applicant has submitted sufficient evidence that adequate delivery, storage, and treatment works will be in place in a timely manner to satisfy the 100-year projected water demand of the applicant. Id.

(1) Groundwater

If the proposed source of water is groundwater to be withdrawn by a municipal provider, ADWR must be able to determine that wells will be constructed in a timely manner within the municipal provider=s service area. A.A.C. ' R12-15-703.C.1. The wells must be of a sufficient capacity to satisfy the applicant=s 100-year projected water demand. A.A.C. ' R12-15-703.C.1.b.

(2) Effluent and Effluent Credits

If the proposed source of water is effluent or effluent credits, the applicant must present evidence that its ability to satisfy its 100-year projected water demand which is to be satisfied with effluent will not be affected by fluctuations in the supply of effluent. A.A.C. ' R12-15-703.C.5.

c. Legal Availability

ADWR also must determine whether the proposed supply of water will be legally available to the certificate of assured water supply applicant for the requisite 100 years. A.A.C. ' R12-15-703.D. The applicant must submit evidence of an agreement between the applicant and a municipal provider proposed to serve water to the applicant regardless of the proposed source of water. A.A.C. ' R12-15-703.D.7.

(1) Groundwater

If the proposed source of water is groundwater to be withdrawn from within an AMA, the applicant must submit evidence that the proposed municipal provider has a service area right or some other

appropriate nonirrigation grandfathered right to withdraw the groundwater. A.A.C. ' R12-15-703.D.1. "Service area" is defined as:

(a) With respect to a city or town, the area of land actually being served water, for a non-irrigation use, by the city or town plus:

(i) Additions to such area which contain an operating distribution system owned by the city or town primarily for the delivery of water for a non-irrigation use.

(ii) The service area of a city, town or private water company that obtains its water from the city pursuant to a contract entered into prior to the date of the designation of the active management area.

(b) With respect to a private water company, the area of land of the private water company actually being served water, for a non-irrigation use, by the private water company plus additions to such area which contain an operating distribution system owned by the private water company primarily for the delivery of water for a non-irrigation use.

A.R.S. ' 45-402.26. A service area right is the right of a city, town or private water company to withdraw and transport groundwater within its service area for the benefit of landowners and residents within its service area. A.R.S. ' 45-492.A.

A municipal provider may expand its service to new areas in two ways. First, the provider can simply extend its distribution system to extend its service area. See, A.R.S. ' 45-402.26.a.i and .b. Pursuant to A.R.S. ' 45-492.A, the provider has a service area right to withdraw and transport groundwater within the expanded service area . See, A.R.S. ' 45-492.A.

There are limitations, however, on a municipal provider=s extension of its service area. Within an AMA, the service area of any city, town, or private water company may not be extended for any of the following purposes:

1. Including a well field within the service area.

2. Furnishing disproportionately large amounts of water to an industrial or any other large water user unless it is consistent with the Management Plan for the AMA and is approved by ADWR.

3. Including irrigation acres within the exterior boundaries of the service area to extinguish the right to convey irrigation grandfathered rights to a nonirrigation use

A.R.S. ' 45-493.A.

The second way that a municipal provider may extend its service into new areas is through the use of a Type 2 nonirrigation grandfathered groundwater right or other groundwater withdrawal right. There are at times when a municipal provider may wish to serve outlying areas, but the cost of extending pipes and, therefore. the service area right, to those areas is prohibitively high. Faced with this dilemma, the provider may opt to construct a delivery system in the outlying area only and begin distributing water via the use of a Type 2 or other right. Arguably, as soon as the provider has begun delivering water through the new pipes, it has acquired a service area right to withdraw and transport groundwater within the new service area. See, A.R.S. ' 45-492.A.

However, ADWR has an internal policy which requires that the Type 2 or other right be exercised in an amount equal to service to four homes for a period of one year before the "priming of the pump" is deemed to have established a service area withdrawal right.

(2) Effluent and Effluent Credits

If the proposed source of water is effluent or effluent credits, the applicant must submit evidence that it has the legal right to use, recapture or reuse the effluent. A.A.C. ' R12-15-703.D.5.

5. Water Quality

A certificate of assured water supply application will only be approved if the applicant submits information from which ADWR determines that the applicant=s proposed water sources will satisfy existing state water quality requirements and any other water quality standards which are effective on the date of applicant and which are applicable to the proposed water use after any required treatment. A.A.C. ' R12-15-704.A. In making this determination, ADWR may consider expected changes in the quality of the proposed sources of water, including the migration of poor quality groundwater. A.A.C. ' R12-15-705.B.

6. Consistency with Management Goal

A certificate of assured water supply application only will be approved if the applicant submits information from which ADWR can determine that the proposed groundwater use will be consistent with the achievement of the management goal of the AMA. A.A.C. ' R12-15-705.A. The management goal for the Phoenix AMA is to reach safe yield by 2025. A.R.S. ' 45-562.A. In laymen=s terms, safe yield is achieved when the amount of groundwater withdrawn from within the AMA does not exceed the amount of water recharged into the aquifer from any source, whether natural or artificial. See, A.R.S. ' 45-561.12.

ADWR must determine the volume of groundwater which the applicant may withdraw from within the AMA for the proposed use for 100 years consistent with the management goal. A.A.C. ' R12-15-705.G. First, the total volume of water, from any source, projected to meet 100% of the applicant=s water demand 15 years after the application is multiplied by an allocation factor of 7.5 for the second management period or by an allocation factor of 4.0 for the third management .period. Id. For all practical purposes, the groundwater allotment for future certificate assured water supply applicants is 4% of the total

water supply. This amount is added to any volume of credits accrued for extinguishment of ~~a~~ grandfathered groundwater rights, as described below. Id. The sum of these amounts is the development=s groundwater allotment.

The applicant may accumulate assured water supply credits for the extinguishment of a grandfathered groundwater right if all of the following conditions are met:

1. The owner of the right submits to ADWR a notarized statement of intent to extinguish the grandfathered groundwater right.

2. The certificate evidencing the grandfathered groundwater right is returned to ADWR or ADWR receives an affidavit evidencing that the certificate has been lost

3. If the right being extinguished is a Type 1, non-irrigation grandfathered right or an irrigation grandfathered right, the owner of the right submits sufficient evidence of ownership of the land associated with the grandfathered groundwater right.

A.A.C. ' R12-15-705.L. The amount of the assured water supply credit established for extinguishing an irrigation grandfathered right is the amount calculated by multiplying 1.5 acre-feet per acre of the number of irrigation acres associated with the extinguished right; that product is then multiplied by the difference of the calendar year of the extinguishment and the year 2025. A.A.C. ' R12-15-705.M.1.

In the case of Black Acre, there will be 230 acres of irrigated acres associated with the extinguished right (320 total irrigated acres - 90 acres for golf course = 230 acres). Thus, if the irrigation grandfathered rights are extinguished in the year 2000, the assured water supply credit for Black Acre will be 8,625 acre-feet ((1.5 a.f. x 230 acres) x (2025-2000) = 8,625 a.f.).

There are also assured water supply credits available for the extinguishment of either a Type 1 or Type 2 nonirrigation grandfathered right. See, A.A.C. ' R12-15-705.M.3 - .6. However, as there are only irrigation grandfathered rights associated with Black Acre, a discussion of the assured water supply credit for extinguishing either Type 1 or Type 2 rights is beyond the scope of this paper.

Assuming the project is fully built out in the fifteenth year, the annual demand will be 1,525.9 a.f.3 Multiplied by an allocation factor of 4.0, the development=s groundwater allotment is 6,103.6 a.f. Adding the extinguishment credits (8,625 a.f.), the total groundwater allotment is 14,728 a.f. Since Black Acre=s 100-year projected demand is 152,590 a.f., and Black Acre=s only readily available supply is groundwater, you may ask yourself, how does Black Acre show compliance with the management goal? The answer is easy. Enroll Black Acre (less the golf course) in the Central Arizona Groundwater Replenishment District ("CAGRD").

The applicant may demonstrate consistency with the management goal, for assured water supply purposes, if all of the following apply:

---

3 We have included the golf course demand, although it is not clear that ADWR will allow this, since the golf course is not part of the subdivision.

1. The land for which a certificate is sought is a member land in the CAGRD.

2. ADWR has made a determination that has not expired that the most recent plan for operation submitted by CAGRD, who is obligated to replenish groundwater on behalf of the land for which a certificate is sought, is consistent with achieving the management goal for the AMA.

3. CAGRD is currently in compliance with its groundwater replenishment obligation for the active management area in which the use is located.

A.R.S. ' 45-576.01.

CAGRD is part of the Central Arizona Water Conservation District. It is obligated to replenish groundwater pumped by its members in excess of their respective groundwater allotments. See, A.R.S. '' 45-3771, *et seq*. Membership in CAGRD means that the owner of member land may use an amount of groundwater in excess of their annual groundwater allotment. If that the member lands se groundwater in excess of the annual groundwater allotment, CAGRD assesses a replenishment tax on the member land at a rate per-acre foot of groundwater sufficient to cover the costs and expenses of associate with such replenishment. A.R.S. ' 45-3778. The current rate for CAGRD=s replenishment tax is $180.00 per acre-foot of water. CAGRD is responsible for acquiring the water that it will use to replenish.

7. Consistency with Management Plan

An application for a certificate of assured water will only be approved if the applicant=s projected groundwater use is consistent with the Management Plan at the date of application. A.A.C. ' R12-15-706.A. The applicant must submit a water supply plan that demonstrates the applicant=s consistency with the Management Plan. Id.

An applicant for a development of more than 50 lots can demonstrate compliance with this consistency requirement if the applicant=s water supply plan indicates that such compliance will be achieved through the use of conservation or augmentation measures. A.A.C. ' R12-15-706.D. The water supply plan must be specific enough to allow ADWR to calculate the water requirements per lot and for nonresidential areas and common areas. Id. The water supply plan must also include an analysis of the effect of the applicant=s water use on the applicant=s municipal provider=s ability to comply with the applicable Management Plan requirements. Id.

Section 5.4.2.1. of the TMP sets forth six criteria that an applicant for a certificate of assured water supply must satisfy in order to demonstrate consistency with the Management Plan. This section is the subject of at least one of the motions for rehearing or review of the TMP. See, fn. 1 at ' I.A, *supra*. In response to the motion(s), ADWR has proposed to modify this section by deleting all of the criteria except the sixth. The sixth criteria provides that a certificate of assured water supply applicant must demonstrate that any new golf courses to be constructed within the subdivision will be designed to comply with any applicable turf-related facility conservation requirements contained in chapter six of the Management Plan.

8. Financial Capability

An application for a certificate of assured water supply will be approved only if the applicant submits evidence that the applicant has the financial capability to construct the delivery system and any treatment and storage works required for the proposed use. A.A.C. ' R12-15-707.A. ADWR may accept evidence of the construction assurances required by '' 9-463.01, 11-806.01 or 32-2181 to satisfy this requirement. A.R.S. ' 45-576.I.

The applicant can demonstrate that it has the requisite financial capability to construct the delivery system if either:

1. The appropriate platting authority determines that the applicant satisfies the platting authority=s standards for financial capability to construct the requisite water utilities and those standards ensure financial capability for assured water supply purposes.

2. The applicant has constructed the requisite distribution works.

A.A.C. ' R12-15-707.B The applicant can demonstrate that it has the requisite financial capability to construct any necessary treatment of storage facility if the applicant either:

1. Has posted a performance bond for the entire cost of the treatment or storage facility; or

2. Has built the treatment or storage facility; or

3. The applicant is a member land of CAGRD.

A.A.C. ' R12-15-707.C.

9. Ownership Changes

A certificate of assured water supply must be in the name of the owner of the development for which the application is filed. A.A.C. ' R12-15-708.A. The certificate may not be transferred from one owner of a development to a subsequent owner, but a subsequent owner may obtain a new certificate for the development if the subsequent owner satisfies certain requirements. A.A.C. ' R12-15-708.B.

If a subsequent owner applies for a new certificate for a development and notifies ADWR in writing of the change in ownership of the development within 90 days after the change of ownership, ADWR must issue the new certificate if the new owner of the development satisfies:

1. Financial capability requirements for the construction of the distribution, storage, and treatment facilities effective at the time the new owner of the development applies for the new certificate;

2. Any consistency with management goal requirements in effect at the time that the initial certificate was issued for the development;

3. The water quality requirements in effect at the time the new owner of the development applies for the new certificate;

4. The physical availability requirements in effect at the time that the initial certificate was issued for the development, except that, where the proposed water supply is other than groundwater, the new owner of the development must satisfy the requirements in effect at the time that the new owner applies for the new certificate; and

5. The consistency with Management Plan requirements in effect at the time that the new owner of the development applies for the new certificate.

A.A.C. ' R12-15-708.C. If the new owner of a development fails to notify ADWR within 90 days of obtaining ownership of the development, any later application for a certificate for the development is reviewed under requirements in effect at the time the new owner files its application. A.A.C. ' R12-15-708.D.

IV. WATER PROVIDER OPTIONS

There are several options available to Blade 'N Build for water service to the development. These options are the nearby city, the nearby private water company, forming a new private water company, and forming an improvement district.

A. Nearby City

One obvious possibility is to seek water and sewer service from the neighboring city. If the city were designated as having an assured water supply, it would be a very attractive choice from a water planning standpoint. Unfortunately, the city near Black Acre is not designated, nor does it appear likely that it can or will become designated.4

The other factors that may influence whether to seek water and sewer service from the city will include cost requirements and exactions for annexation, the ability to obtain a commitment for the delivery of effluent, the requirement or lack thereof to use effluent on the golf course and avoiding water service from a private water company.

B. Nearby Private Water Company

Another option would be to expand the certificate of convenience and necessity ("CC&N") of the adjacent private water company to include Black Acre. By statute, it is not necessary to seek Arizona Corporation Commission ("ACC") approval to extend service to property adjacent to an existing CC&N. A.R.S. ' 40-281.B. However, the ACC purports to require that the private water company must give notice of the extension to the ACC. A.A.C. ' R14-2-402.C. The notice must be a verified writing

4 Attach hereto as Appendix A, is a list of the designated providers in the Phoenix AMA. These designations may expire or be revoked in the future.

and must set forth, at a minimum, the number of persons or entities proposed to be served by the extension, their location in relation to the company=s certificated area, and a statement that the extension is to a noncertificated area which is contiguous to its certificated area. Id.

In order to obtain a certificate of assured water supply, ADWR will require that the CC&N formally be expanded by an order of the ACC. See, A.A.C. ' R12-15-702.A.1.st. In order to expand the CC&N, it will be necessary for the water company to make application to the ACC. The process is supposed to take no more than six months. A.A.C. ' R14-2-411.C; see also, A.R.S. '' 41-1072 *et seq*. However, experience has shown that the process likely will take from six to nine months.

C. Form a New Private Water Company

Another option would be to form a new private water company. A new private water company must first obtain a CC&N from the ACC prior to beginning construction of any of the water system. A.R.S. ' 40-281.A; A.A.C. ' R14-2-402.A.1. If the applicant for a CC&N is a corporation, a certified copy of its articles of incorporation must be filed with the ACC before any CC&N will be issued. A.R.S. ' 40-282.A. Every applicant for a CC&N must also submit to the ACC, evidence required to show that the applicant has received the required consent, franchise or permit of the proper county, city and county, municipal or other public authority, for the use of public rights-of-way for the distribution system. A.R.S. ' 40-282.B.

Six copies of each application for a new CC&N must be submitted in a form prescribed by the ACC and must include, at a minimum, the following information:

1. The proper name and correct address of the proposed utility company and its owner, if a sole proprietorship, each partner if a partnership, or the President and Secretary if a corporation.

2. A copy of the articles of partnership or articles of incorporation for the applicant and/or bylaws if the utility is a non-profit organization, or association.

3. The type of plant, property, or facility proposed to be constructed.

4. A complete description of the facilities proposed to be constructed, including preliminary engineering specifications in sufficient detail to properly describe the principal systems and components which meet the requirements of the health department. Final and complete engineering specifications shall be supplied when they become available.

5. The rates proposed to be charged for the service that will be rendered.

6. The estimated total cost of the proposed construction.

7. The manner of capitalization and method of financing for the project.

8. The financial condition of the applicant.

9. The estimated annual operating revenues and expenses that are expected to accrue from the proposed construction.

10. The estimated starting and completion date of the proposed construction.

11. Maps of the proposed service area.

12. Appropriate city, county and/or state agency approvals.

13. The estimated number of customers to be served for each of the first five years of operation, including documentation to support the estimates.

A.A.C. ' R14-2-402.A.2.

Upon the receipt of a CC&N application, the ACC Utilities Division staff will review the application for compliance with the information requirements and any additional information. Amendments and/or corrections to the application to bring the application into such compliance are governed by the Commission=s rules of administrative and hearing requirements concerning incomplete applications. A.A.C. ' R14-2-402.A.3. Once the CC&N applicant has satisfied the information requirements, as well as any additional information required by staff, the ACC is to, as expeditiously as reasonably practicable, schedule hearings to consider such application. A.A.C. ' 14-2-402.A.4.

One of the disadvantages of forming a new private water company is that the process will involve significantly greater transactional expenses. In addition, the process is supposed to take no more than six months. A.A.C. ' R14-2-411.C; see also, A.R.S. '' 41-1072 *et seq*. (administrative time frames). However, experience has shown that the process often takes at least nine months to one year. See, A.A.C. ' R14-2-411.C. It also creates a business that the developer must either sell or continue to operate after all of the houses have been sold. The primary considerations in deciding whether a new private water company is advantageous will generally include cost and regulatory compliance obligations.

D. Form an Improvement District

The fourth alternative would be the establishment of an improvement district. There are several different types of improvement districts that may be formed depending on whether Blade 'N Build decides to stay in the county or seek annexation to the nearby city.

If Blade 'N Build decides to stay in the county, it could establish a County Improvement District ("CID") pursuant to A.R.S. '' 48-901 *et seq*. The purposes for which a CID may be formed includes the "construction of waterworks for the delivery of water for domestic purposes." A.R.S. ' 48-909.A.6. Alternatively, a Domestic Water Improvement District ("DWID") could be established in the county pursuant to A.R.S. '' 48-1011 *et seq*. A DWID is an alternative form of a CID formed for the purpose of constructing or improving a domestic water delivery system or purchasing an existing domestic water delivery system. A.R.S. ' 48-1011.3.

If Blade 'N Build decides to seek annexation to the nearby, it could establish a Municipal Improvement District ("MID") pursuant to A.R.S. '' 48-571 *et seq*. An MID may be formed to accomplish the "construction, reconstruction, or acquisition of waterworks." A.R.S. ' 48-572.A.5.

The option of forming any of the above improvement districts may be considered, either alone or in combination with one of the previously discussed options An improvement district is primarily a financing mechanism, providing both bonding capacity and assessment powers.

V. CONCLUSION

There are obviously a number of water issues that will be significant in the development of Black Acre. In our opinion, biased though it may be, the most effective option that Blade 'N Build could choose for addressing these myriad issues would be to retain a highly qualified and experienced water lawyer.

APPENDIX "A"

PHOENIX AMA
WATER PROVIDERS WITH DESIGNATION OF ASSURED WATER SUPPLY

Apache Junction Water Facilities District
Avondale
Chandler
Chandler Chaparral City Water Company
El Mirage
Gilbert
Glendale
Goodyear
Mesa
Peoria
Phoenix
Scottsdale
Surprise
Tempe

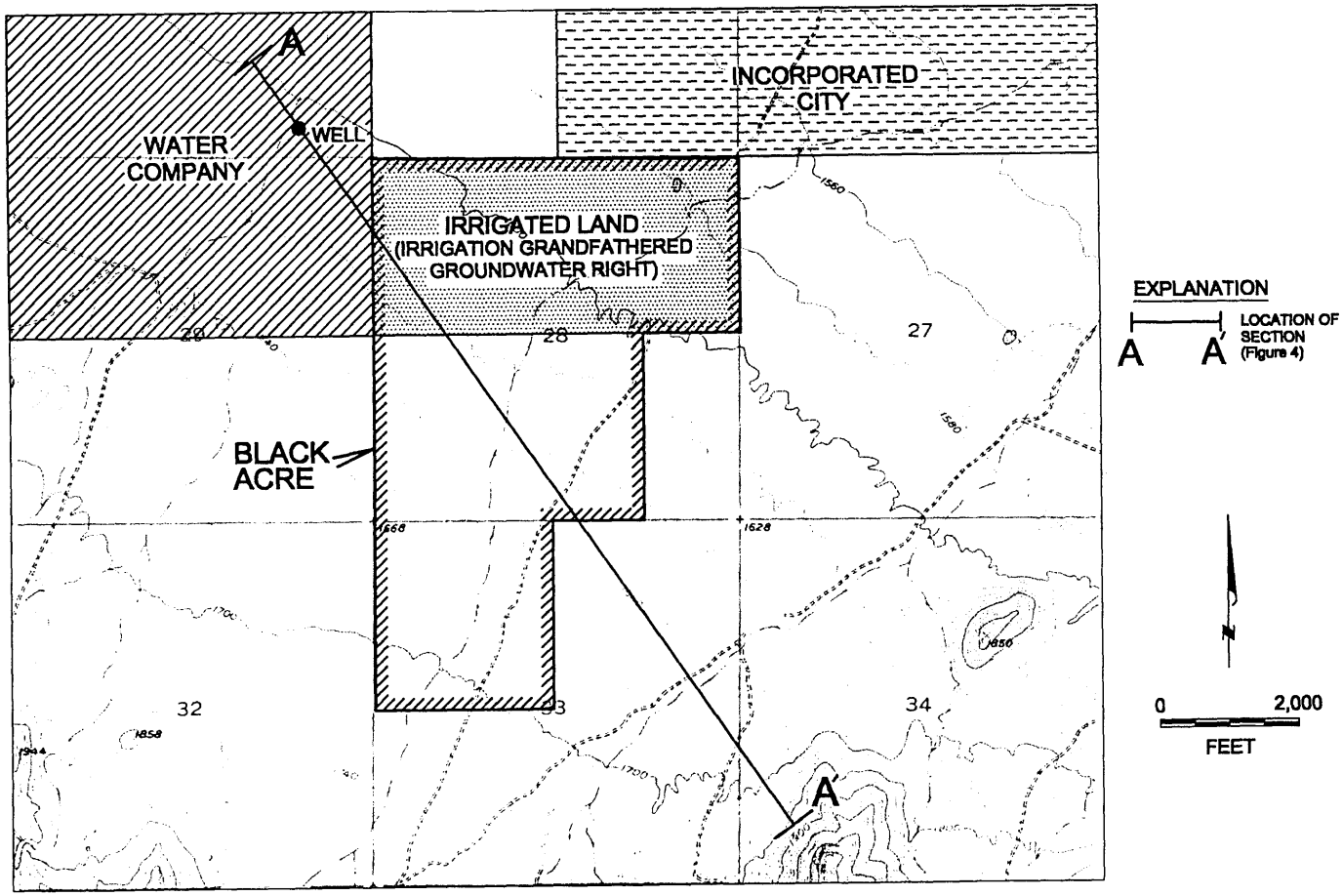

FIGURE 1. LOCATION MAP, BLACK ACRE SUBDIVISION, MARICOPA COUNTY, ARIZONA

ERROL L. MONTGOMERY & ASSOCIATES, INC.
CONSULTANTS IN HYDROGEOLOGY
1550 E. PRINCE ROAD, TUCSON, ARIZONA 85719
PHONE: (520) 881-4912

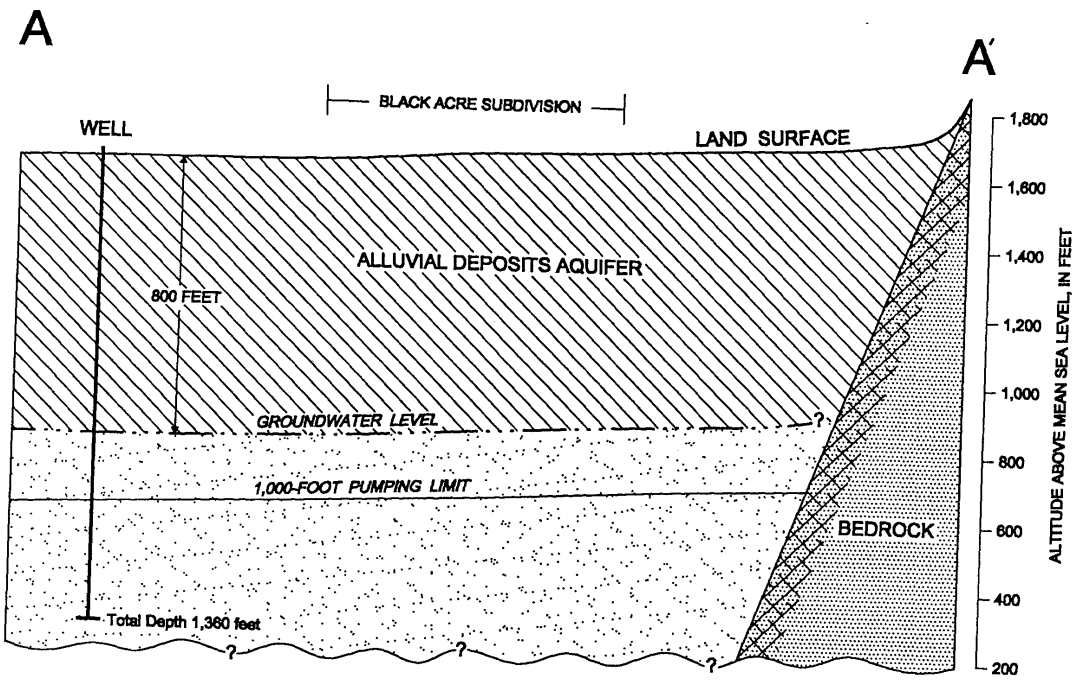

FIGURE 4. SECTION THROUGH BLACK ACRE SUBDIVISION, MARICOPA COUNTY, ARIZONA

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