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10-25-17P12:57 RCVD

K. Heitman

Mr. Earl Hahn  
DeSoto County  
Development Director  
201 E. Oak Street  
Arcadia, Florida 34266

**RE: Request for Additional Information  
Mining Master Plan and Operating Permit  
DeSoto Mine, Mosaic Fertilizer, L.L.C., DeSoto County**

Dear Mr. Hahn:

The following information was prepared by Mosaic Fertilizer, LLC (Mosaic) in response to DeSoto County's (County) Request for Additional Information (RAI) dated March 23, 2017 for the proposed DeSoto Mine. The County's comments are in **bold** and *italics*, immediately followed by Mosaic's response.

**Planning Commission Report**

Subsection 12504A of Land Development Regulations (LDRs) Section 12500 provides that the report and recommendations of the Planning Commission to the Board of County Commissioners shall show that the Planning Commission has studied and considered the proposed change in relation to the 15 factors listed below.

**1. Whether the proposed change would be consistent with the Goals, Objectives and Policies of the Comprehensive Plan.**

*The application states the rezoning amendment is consistent with the County's adopted Comprehensive Plan as demonstrated in Attachment 8. The Development Director notes that it has not received a boundary map for each of the eleven (11±) or more areas being rezoned and, consequently, it is premature to make any determination on whether the PM-I boundaries are consistent with the Interim 2040 Future Land Use Map's Generalized Phosphate Mining Overlay District (GPMOD) designation.*

*In addition to conformance with the GPMOD, the Development Director concludes the rezoning application also should be in conformance with the FLUEMS-9 Map on 100 Year Floodplains Prohibited From Extraction (See Attachment 9). The Development Director concludes that Owner lands within the identified map areas should not be rezoned PM-I but should remain A-10. The Development Director finds there is an area being rezoned in Section 13-37-24 that appears to be within the area prohibited from extraction.*

Response:

Mosaic has provided tile maps of each of the individual parcels as Exhibit A to this response. Additionally, legal descriptions for each of the areas to be rezoned were provided in Section 2 of the application submittal. Section 3 of the application contains a mine-wide map of the areas to be rezoned to PM-I, which also depicts the GPMOD (Map 3), and a series of Specific Purpose Sketches showing each of the discrete areas proposed for rezoning (Map 5, Sheets 1 through 6). The tile maps, legal descriptions, and Section 3 of the application collectively demonstrate that each of the parcels to be rezoned to PM-I are within the GPMOD.

Permitted uses within the PM-I zoning district are phosphate mining, mining support systems such as rail transport and transmission line corridors, and agricultural use activities. The Future Land Use Element Map Series-9 (FLUEMS-9) map depicts only those areas where extraction is not permitted. However, the legend expressly notes "Floodplains to be protected do not preclude permitting and use of utility corridors (railroad, pipelines, powerlines, service/maintenance roads, etc. and/or dragline crossings) over these floodplains for property access." These uses, which are expressly not prohibited, qualify as mining support systems. Therefore, it is appropriate to rezone to PM-I those areas where extraction is prohibited, as shown on the FLUEMS-9 Map, for the sole purpose of siting access and utility corridors. The related applications required for approval of extraction, including the Mining Master Plan (MMP) and the Operating Permit (OP), specifically address floodplains by illustrating avoidance of all prohibited areas, except for the proposed locations of the utility corridors. Consequently, the application demonstrates conformance with the GPMOD designation and the FLUEMS-9 Map.

**2. The existing land use pattern.**

*The application states the rezoning request will allow for the application of the Mining Master Plan (MMP) and Operating Permit (OP) approvals of phosphate mining and related activities that will be a new use in the area. Pre-mining and post-reclamation, the land use pattern will be the same as currently exists, predominantly agricultural use and natural lands. The rezoning request is not unexpected as the properties subject to the rezoning are overlain by the GPMOD, which identifies land containing phosphate minerals and where phosphate mining is planned or likely to occur.*

*The Development Director finds that the rezoning application is for 11± or more non-contiguous areas but the application treats the rezoning as if it were one single area. The Development Director finds the application does not contain substantial competent evidence to support treating each of these 11± or more areas as one. Each of these 11+ areas could vary as to surrounding land uses, zoning districts, future land use map designations, typical lot sizes, character of the area, building heights, and functional roadway classification. Without an individual assessments of each of the 11± areas and a conclusion that they are all substantially similar to one another, the application fails to meet the burden of showing the existing pattern can be treated as one area.*

Response:

Mosaic acknowledges its burden of showing that it has complied with the procedural requirements for a rezoning request and to establish that it meets the standards and factors identified in the LDR. The LDR does not prohibit an application for rezoning for non-contiguous areas and there is no requirement to establish, by substantial competent evidence, that the areas should be treated as one request. Nonetheless, the areas addressed in the application form one contiguous mine tract when coupled with the abutting land already zoned PM-I (Map 3) and excluding consideration of roads as parcel boundaries.

All the areas proposed for rezoning are overlain by the General Phosphate Mining Overlay District (See Section 3, Map 1). All surrounding lands are either zoned PM-I or A-10 as depicted in Section 3, Map 1 of the application. Further, the existing land use pattern for all property within the proposed DeSoto Mine boundary and the surrounding lands is entirely agricultural uses. There is no adjacent non-agricultural development, very few roads, two complementary zoning districts, one future land use category, and the GPMOD. The character of the adjacent uses does not vary from the lands to be re-zoned, with buildings limited to those needed to support agricultural uses. The information that has been provided is sufficient to conduct a review to consider the request in relationship to the existing land use patterns.

### **3. The creation of an isolated district unrelated to adjacent and nearby districts.**

*The application states the proposed amendment will not create an isolated district unrelated to adjacent and nearby districts. Attachment 10 shows the GPMOD boundaries, and the MOS holdings within that boundary by zoning district. The white cross-hatched area are those 6,559.6 acres owned by Mosaic that already are zoned PM-I district. The purple cross-hatched areas are the remaining MOS holding that are zoned A-10 district. The effect of the rezoning appears to be that most or all of the MOS holdings would be consolidated into one area. Notwithstanding, without the individual area maps, the Development Director cannot confirm that an isolated district would not be created.*

Response:

This factor examines whether the proposed rezoning would create an isolated district **unrelated to adjacent and nearby districts**. The question is not whether an isolated district is created, but whether that isolated district is unrelated to both adjacent and nearby districts. Map 3 in Section 3 of the application clearly shows that the proposed areas of rezoning are all immediately adjacent to existing PM-I zoned lands. As noted previously by staff, the rezoning request is not unexpected. The request consolidates the lands owned by the applicant into one zoning district located in one future land use category, all overlain by the GPMOD. Adoption of the GPMOD acknowledges the presence of an area within the County where phosphate mining is likely to be proposed and a corresponding re-zoning application likely to be filed. Both the pre-mining and post-reclamation land uses will be directly related to adjacent and nearby districts.

Mosaic has provided tile maps of each of the individual parcels as Exhibit A to this response. Additionally, legal descriptions for each of the areas to be rezoned were provided in Section 2

of the application submittal. Section 3 of the application contains both an overall map of the areas to be rezoned to PM-I which also depicts the Generalized Phosphate Mining Overlay District boundary (Map 3) and a series of Specific Purpose Sketches showing each of the discrete areas proposed for rezoning (Map 5, Sheets 1 through 6). This documentation demonstrates that the requested rezoning will not create an isolated district that is unrelated to adjacent and nearby districts.

**4. The impact on the availability of adequate public facilities consistent with the level of service standards adopted in the comprehensive plan, and as defined and implemented through the DeSoto County concurrency regulations.**

*FLUE Policy 1.22.5 establishes level of service (LOS) standards for the following public facilities: roadways, recreation and open space, solid waste, potable water and sanitary sewer. The application states that due to the nature of the request, the proposed change will not result in increased population / density and will not impact the availability of public facilities including potable water, sanitary sewer, recreation and open space (there is no residential component), solid waste, transportation, and drainage.*

*FLUE Policy 1.22.5(2)(b) provides that for recreation and open space, failure to provide sufficient supply for projected needs will result in the denial of concurrency. Recreation and Open Space Element Policy 1.1.1 provides the recommended planning level of service (LOS) standard for parks shall be twenty (20) acres of parkland per 1,000 residents. This standard includes both passive and active County parks and recreational facilities, and includes Regional, Community, Neighborhood, and Mini-parks. The application states that due to the nature of the request, the proposed change will not result in increased population / density and will not impact the availability of recreation and open space because there is no residential component. Notwithstanding, the Development Director finds the PM-I zoning district allows as a special exception use single-family dwellings as support for mining. Since the application does not include any guarantee that housing will not be pursued as a special exception use, the Development Director concludes the application does not establish by competent substantial evidence that adequate recreation and open space facilities will be available concurrent with development.*

*FLUE Policy 1.22.5(3)(b) provides that for potable water and sanitary sewer, failure to provide sufficient supply for projected needs will result in the denial of concurrency. For level of service analysis purposes, the potable water LOSS is 102 gallons per person per day while the sanitary sewer LOSS is 80 gallons per capita per day. The application states that DeSoto Mine's water supply will primarily be from rainfall and groundwater withdrawn from Mosaic's Ft. Green facility in Polk County. This water supply is planned to be piped from Ft. Green withdrawal points to the DeSoto plant, thereby minimizing any impact to aquifer recharge. There are currently no public water or sanitary sewer services in the area. Onsite facilities will be provided to meet the mine needs. The Development Director finds the application does not contain any assurances from Polk County that Mosaic's Ft. Green facility has sufficient capacity to meet mining needs and that the proposed onsite facilities will meet*



*mining needs. Although these may not be concurrency related issues, they could affect the public health, safety, and general welfare.*

*FLUE Policy 1.22.5(2)(b) also provides that for solid waste, failure to provide sufficient supply for projected needs will result in the denial of concurrency. An Engineering Division analysis found that as of January 1<sup>st</sup>, 2016, Landfill Zone 4 about 70 percent of the design capacity has been filled. For level of service analysis purposes, the solid waste LOSS is 2.75 pounds per capita per day. The application states that according to a review of the Solid Waste Element of the Comprehensive Plan, the existing DeSoto County Section 16 Landfill has adequate capacity to serve the solid waste needs of the Mine. Best Management Practices will be instituted once mining is approved that will ensure meeting the adopted level of service for stormwater management. The Development Director finds the application does not identify the amount of solid waste that will be generated from the mine and, therefore, impacts to solid waste facilities cannot presently be determined.*

*Transportation Element Policy 1.1.3 provides the level of Service for rural two-lane roadways which are recognized as SIS and FISH facilities, such as State Road 70 and US Highway 17, are designated as "C" pursuant with F.A.C. 14-94.003. All two-lane rural roadways shall also be considered "C." The rezoning application references the transportation analysis included with the MMP application as evidence that the traffic generated by the proposed mine is less than five percent of the roadway capacities and that such roadways will continue to operate within adopted levels of service. The Development Director did not find any roadway analysis in the MMP.*

Response:

Pursuant to FLUE Policy 1.22.2, a standard district rezoning is considered a preliminary development order in recognition of the fact that binding densities and intensities of development are not established. In accordance with the Policy, concurrency may be evaluated as one criterion, but lack of concurrency is not to be the sole reason for denial of any preliminary development order. Subsequent to approval of the rezoning request of the MMP, the OP will provide data and analysis establishing concurrency for each 5-year operational period.

Recreation and Open Space - No special exception for residential use is requested as part of or accompanying this application. A special exception would establish binding densities and intensities through a separate review and quasi-judicial hearing process and would therefore require a concurrency determination at that time.

Potable Water and Sanitary Sewer – A concurrency analysis for potable water and sanitary sewer is inapplicable to this application. There are no public facilities in the area of the proposed rezoning, so there will be no impact on DeSoto County's utility capacity. Mosaic will install and operate a private well and septic system to serve its proposed administration building. The proposed use of water piped from Polk County will not be subject to Polk County review; the water will be pumped from the ground from a permitted source and not taken from the County's public supply. An Integrated Water Use Permit (IWUP) has been issued by the

Southwest Florida Water Management District (SWFWMD), which specifically authorizes the withdrawal from the Ft. Green wells to provide the water supply for the proposed DeSoto Mine. A copy of the IWUP issued by SWFWMD is attached as Exhibit B to the application.

Solid Waste - Mosaic's reliance on the County's solid waste facility will be limited to the disposal of office trash not otherwise recycled (e.g. paper, aluminum cans, plastic, etc.). All production related materials will be recycled or disposed of using private vendors and facilities (e.g. used motor oil, other lubricants, anti-freeze, electric motors, steel and plastic pipes, fluorescent bulbs, etc.) and will not be sent to the DeSoto County landfill for disposal. The volume of office trash will be less than half of the 2.75 pound per day LOS.

Transportation - The referenced transportation analysis can be found at Appendix 7-4, Tab 15 (on CD) of the MMP and OP application. The analysis concludes that the project traffic is less than 5 percent of the roadway capacities and that existing levels of service will not be degraded.

**5. Whether the existing district boundaries are illogically drawn in relation to existing conditions on the property proposed for changes.**

*The application states that as acknowledged by the subject properties inclusion within the GPMOD, an existing condition is the presence of the phosphate resource. The proposed change to PM-I is consistent with the configuration of the GPMOD. Currently, there are existing properties zoned PM-I by the County adjacent or proximate to this rezoning request, which allow mining. As stated elsewhere in this report, the Development Director needs boundary maps for each area being rezoned and the land uses and conditions in each of those areas. Once that documentation is received, a determination can be made as to whether the existing boundaries are illogically drawn, especially as it related to areas within the 100 year floodplain where extraction is prohibited.*

Response:

All property proposed for rezoning is overlain by the GPMOD. The area within the GPMOD has phosphate underlying the surface as determined by numerous scientific/geological publications, including those published by the Florida Geological Survey. This creates a unique existing condition on the property proposed for change. Since it is the existence, location and ownership of the phosphate mineral resource that determines the mine boundary, the existing district boundaries are being requested to be amended to encompass the area of the resource to be mined.

Mosaic has provided tile maps of each of the individual parcels as Exhibit A to this response. Additionally, legal descriptions for each of the areas to be rezoned were provided in Section 2 of the application submittal. Section 3 of the application contains a mine-wide map of the areas to be rezoned to PM-I, which also depicts the GPMOD (Map 3), and a series of Specific Purpose Sketches showing each of the discrete areas proposed for rezoning (Map 5, Sheets 1 through 6).

Permitted uses within the PM-I zoning district are phosphate mining, mining support systems such as rail transport and transmission line corridors, and agricultural use activities. FLUEMS-9 depicts only those areas where extraction is not permitted. However, the legend expressly notes "Floodplains to be protected do not preclude permitting and use of utility corridors (railroad, pipelines, powerlines, service/maintenance roads, etc. and/or dragline crossings) over these floodplains for property access." These uses, which are expressly not prohibited, qualify as mining support systems. As noted in the response to Criterion 1 above, it is appropriate and necessary to rezone to PM-I those areas where extraction is prohibited, as shown on the FLUEMS-9 Map, for the sole purpose of siting access and utility corridors.

**6. Whether changed or changing conditions make the passage of the proposed amendment necessary.**

*The application states the proposed amendment from A-10 to PM-I is necessary to allow for additional applications to conduct phosphate mining within the GPMOD. The proposed mining of the DeSoto Mine is the logical progression of mining in the Central Florida Phosphate District generally trending to the south. The subject property's existing zoning predates the amendment to the Comprehensive Plan adding the GPMOD and the establishment of the PM-I zoning district. Those changes created the new framework for phosphate mining and necessitate this proposed amendment.*

*The Development Director finds the application proposes to rezone 11± areas but it does not identify when mining activities will commence, when they will terminate, and why it is necessary to rezone those areas now instead of in the future. For those areas that will be mined subsequent to the 2040 planning horizon of the Comprehensive Plan, no documentation was provided to support a finding that the rezoning is necessary at this time.*

Response:

No mining in the proposed DeSoto Mine Boundary is currently planned after the 2040 planning horizon. Map 3-1, Tab 13 Supplemental Information Document to the MMP and OP application illustrates the planned mining sequence. The mining phase of the DeSoto Mine is anticipated to occur over the course of a 15-year period. Completion of reclamation of mined and disturbed areas is anticipated to lag mining by approximately 7 years, concluding approximately 22 years following mine startup.

Since the rezoning to PM-I does not permit any mining activity, but does permit existing agricultural uses to continue, the decision was made in discussions with DeSoto County staff to rezone all the lands within the GPMOD at one time. Reviewing agencies at the federal and state level conduct a mine-wide comprehensive evaluation of existing conditions, mine planning, and reclamation activities in lieu of a piecemeal approach. The rezoning allows for identification and consolidation of the mine boundaries.

**7. Whether the proposed change will adversely influence living conditions in the area.**

*The application states the proposed change will not adversely influence living conditions in the neighborhood. The closest neighborhood is located south of 32nd Street approximately one mile west of the intersection of SR 70 and 32nd Street, approximately two miles to the south of the mine boundary. No land proposed for rezoning is located closer than land already zoned PM-I. Moreover, the DeSoto Mine is located within lands identified as planned for phosphate mining or where phosphate mining is likely to occur. Rezoning of these properties does not automatically grant the Applicant the ability to begin phosphate mining activities, operations or the authorization to mine. Authorization is granted by the County and through the approval of the MMP and OP, which are governed by both Comprehensive Plan policies and Land Development Regulations designed to ensure that phosphate mining will not adversely influence living conditions in the area.*

*The Development Director finds that 11± areas are proposed to be rezoned and within each area, a map is not provided showing the boundaries of the excavation activities in relationship to the surrounding properties and the existing and reclaimed uses. Thus, the Development Director cannot assess whether the changes will adversely affect the short- and mid-term living conditions in each of the 11± areas. Consequently, the mid- and long-term impacts on the living conditions cannot be assessed.*

*In addition, the application appears to propose the rezoning of a strip of land that will be used for railways. The rezoning application incorporates the MMP and OP applications by reference. The OP states that up to eight (8) thru train movements will be required daily (at 10 minutes per crossing) but the analysis does not identify what noises and vibrations will result from the usage of this railroad spur, what the days and hours of railroad operation are, and what steps will be taken to mitigate noise and vibrations, especially during the evening hours. The impacts with this transportation alternative were not addressed in the rezoning application.*

Response:

Mosaic has provided tile maps of each of the individual parcels as Exhibit A to this response. Additionally, legal descriptions for each of the areas to be rezoned were provided in Section 2 of the application submittal. Section 3 of the application contains a mine-wide map of the areas to be rezoned to PM-I which also depicts the GPMOD (Map 3), and a series of Specific Purpose Sketches showing each of the discrete areas proposed for rezoning (Map 5, Sheets 1 through 6). Sufficient and competent information has been provided for conducting a review of this criterion.

All the areas proposed for rezoning are within the GPMOD (See Section 3, Map 1). All surrounding lands are either zoned PM-I or A-10 as depicted in Section 3, Map 1 of the application.

All infrastructure corridors will be within areas scheduled for mining and reclamation, except for four multi-use and two railroad only stream crossings shown on Map 3-2, Tab 13 in the Supplemental Information Document to the MMP and OP applications.

The DeSoto County Land Development Regulations (Article IX, Division 2, Sections 20-972-976) provide strict setback requirements for phosphate construction and mining activities and address excavation, settling ponds, stockpiles and beneficiation facilities. Setback requirements are depicted graphically in Maps 7-2 through 7-6, Tab 13 of the Supplemental Information Document to the MMP and OP application. These setbacks have been established to minimize the effects of mining on surrounding land uses and to maximize protection of public facilities, natural resources, and the environment. The LDR allows for reductions of setbacks by the consent of adjoining owners.

Mining activities proposed to be conducted at the DeSoto Mine are not anticipated to increase noise at property lines to levels that exceed the applicable standards established in DeSoto County. While neither the U.S. Environmental Protection Agency (EPA) nor the Florida Department of Environmental Protection have adopted federal or state community noise regulations, the DeSoto County standards are based on recommendations published by EPA. Mosaic has conducted numerous noise studies at its operating facilities that utilize equipment and methods similar, if not identical, to those proposed for the DeSoto Mine that indicate all levels will be below required levels. Similar studies on vibration have indicated that vibration levels from mining activities will not cause damages to property. Notably, phosphate mining does not require blasting. Appendix 7-5 of the MMP and OP application (on CD) contains example noise, vibration and light studies from the South Fort Meade and Four Corners Mines.

Noise and vibrations generated by train traffic will be no different than the existing levels generated by each train movement through the County, with the exception being train movements across spurs and onto the main line occur at slow speeds, which reduce both noise and vibration levels.

**8. Whether the proposed change will create or excessively increase traffic congestion or otherwise affect public safety.**

*The application states the proposed change will not create or excessively increase traffic congestion or otherwise affect public safety. The closest neighborhood is located south of 32nd Street approximately one mile west of the intersection of SR 70 and 32nd Street, two miles to the south of the mine boundary. No land is proposed for rezoning is located closer than land already zoned PM-I. Traffic and transportation related analysis is provided with the MMP and OP, and includes analysis of the existing and projected levels of service for the applicable County and State roadway network. The traffic and transportation related analysis submitted with the MMP and OP are hereby incorporated into this application by reference. All applicable permits will be applied for and will received consistency with County and/or State access management requirements.*

*The Development Director has reviewed the traffic and transportation related analysis provided with the MMP and OP and concludes it does not adequately address this factor because it focuses on traffic concurrency but not public safety. The Appendix 7-4 Table of Contents does not show any analysis of the number of accidents on SR-70, the average delay time associated with an accident, and what alternative routes are available if SR-70 is*



*closed. In the event of a road closure, what alternative roadways would be used and, if local roads are impacted, do those roadways have sufficient pavement width and surface condition to allow the safe navigation of the local roadway network?*

Response:

The DeSoto Mine is located in an area of DeSoto County characterized predominantly by agricultural use across thousands of acres. The existing residential population is very small. As the transport of mined materials will be predominantly by rail, traffic from the DeSoto Mine will be limited to that generated by its anticipated 250 employees. The employees are scheduled in three overlapping shifts; the traffic generated by those departing the facility is not concurrent with the traffic from those arriving at the facility. As a result, the DeSoto Mine's projected traffic will comprise less than 5% of the adopted level of service for SR 70 in the vicinity of the project and does not rise to a level that would justify the requested analyses.

The impact to public safety will be no different than any other development generating a similar number of trips. An analysis of possible accidents would be speculative at best and beyond the purview of a rezoning request. Planning for a possible and temporary road closure that might or might not occur is not feasible or appropriate.

All infrastructure corridors, including service roads, dragline walk paths, powerlines and pipelines will be within areas scheduled for mining and reclamation, except for four multi-use and two railroad only stream crossings shown on Map 3-2, Tab 13 in the Supplemental Information Document to the MMP and OP application.

**9. Whether the proposed change will create a drainage problem.**

*The application states the proposed change will not create a drainage problem. The rezoning itself does not authorize mining and related activities. Information specific to drainage and stormwater management is required to be provided as part of the MMP and OP applications submitted to the County. Once approved, a ditch and berm system will be constructed (and grassed) around the perimeter of areas to be mined or disturbed. The ditch and berm system is a structural Best Management Practice that has proven effective in the virtual elimination of offsite turbid runoff and soil erosion during the mining and reclamation stages of operation.*

*The Development Director agrees that the rezoning application will not in itself create a drainage problem and concludes drainage issues are best addressed as part of the MMP, OP, and Improvement Plan applications. Thus, it is concluded the application is in **conformance** with this factor because the rezoning application does not authorize any specific activity but a range of activities allowed within the zoning district.*

Comment acknowledged.

**10. Whether the proposed change will seriously reduce light and air to adjacent areas.**

*The application states the proposed change will not seriously reduce light and air to adjacent areas. The MMP and OP applications identify areas of development/mining activities including development setbacks along property boundaries and/or roadways. The applications also address measures to reduce fugitive dust emissions. Due to the proposed setbacks, the performance standards associated with the type of activities permitted consistent with the proposed zoning district, and the structures to be built, air and light are not reduced to adjacent areas.*

Comment acknowledged.

**11. Whether the proposed change will adversely affect property values in the adjacent area.**

*The application states the proposed change is not expected to adversely affect property values in the adjacent area. There are very few homes located in proximity to the Mine and there is only limited demand for additional housing or other development in the area. Uses and activities currently permitted by the zoning of the adjacent lands are not constrained or limited. All lands proposed for rezoning are already located within the GPMOD. Any impacts to adjacent property values could have occurred at the time of GPMOD was put into place. Mining is a temporary land use occurring at only a portion of the Mine at any one time. The reclaimed land will be able to support the same land uses that existed prior to mining.*

*The Development Director finds that the application does not identify the proposed uses that are proposed to operate within each of the 11± areas and the land uses that are adjacent to each of the 11± areas. Moreover, the application does not indicate whether berms will be constructed in these 11± areas and, if so, the height of the berm, and no study has been provided to show that the construction of berms will not adversely impact property values in the adjacent area. In a study conducted on the impact of noise barriers on the price of adjacent houses based on a repeat sale analysis that study showed the noise barrier induced 6% decrease in the house prices in their sample in the short run, while it had a stronger negative impact of 11% in the long run.*

*The Development Director concludes that without a description of the short term and long term uses proposed in each of the 11± areas being rezoned, and whether a berm is being provided, and if so, its location and height and distance from adjacent property owners the application fails to demonstrate through competent substantial evidence that property values will not be adversely impacted.*

Response:

All the areas proposed for rezoning are within the General Phosphate Mining Overlay District (See Section 3, Map 1). All surrounding lands are either zoned PM-I or A-10 as depicted in Section 3, Map 1 of the application. The adjacent areas are all designated as Rural/Agriculture on the Future Land Use Map. According to Future Land Use Element Objective 1.3 of the Comprehensive Plan, the “first priority” of the Rural/Agriculture category is agricultural use.

Phosphate mining operations do not impact the ability to utilize adjacent or nearby areas for agricultural use.

Mining activities proposed to be conducted at the DeSoto Mine are not anticipated to increase noise at property lines to levels that exceed the standards of DeSoto County. Mosaic has conducted numerous noise studies at its operating facilities that utilize equipment and methods similar, if not identical, to those proposed for the DeSoto Mine that indicate all levels will be below required levels. Similar studies on vibration have indicated that vibration levels from mining activities will not cause damages to property outside of the project boundary. Appendix 7-5 of the MMP and OP application (on CD) contains example noise, vibration and light studies from the South Fort Meade and Four Corners Mines.

The comparison to highway noise barriers is not applicable because those barriers are permanent and are located in fully-developed residential areas. It is important to consider that mining is a temporary use and that mining activities occur over a relatively short timeframe at any one location outside of the plant and infrastructure sites. Residential development pressure in this area of the County is not expected to change over the entire 2040 planning horizon due to Comprehensive Plan Policies and the implementing LDR. Development will occur in existing growth areas in the County that are not located in proximity to the proposed mine boundaries. The setbacks, including the use of berms, will allow for the very limited residential development that might occur in this part of the County. The berms are recognized as Best Management Practice in Policy P.12b.3(i) of the FLUE.

**12. Whether the proposed change will be a deterrent to the improvement or development of adjacent property in accord with existing regulations.**

*The application states all lands proposed for rezoning are already located in the GPMOD. Any deterrent to the improvement or development of the adjacent property could have been occurred at the time the GPMOD was put into place. In addition, the proposed rezoning will not restrict or inhibit permitted uses on adjacent properties as many of these adjacent lands are currently zoned PM-I. Furthermore, post reclamation landscapes will not deter improvement and development on adjacent properties.*

*The Development Director does not find any study demonstrating that a rezoning to allow phosphate mining would not deter the improvement or development of adjacent property. It is reasonable to assume that the public perception of phosphate mining is that it is a use that creates noise, vibrations, and air and water pollution and said factors would discourage investment and reinvestment in adjacent areas. The burden is on the owner to demonstrate through substantial competent evidence that the changes will not deter improvement and development on adjacent property as compared to non-mined property.*

Response:

The adjacent areas are all designated as Rural/Agriculture on the Future Land Use Map. The intent of this category is primarily agricultural, pastoral and rural residential development at a

density not to exceed one dwelling unit per ten (10) acres. According to Future Land Use Element of the Comprehensive Plan Objective 1.3, the “first priority” of the Rural/Agriculture category is agricultural use. Therefore, extensive development and improvement of the adjacent property is not encouraged or supported by the Comprehensive Plan. Without a FLUE amendment, a residential subdivision and/or commercial development would not be supported by the FLUE policies.

The Future Land Use Element states that projected land use needs are based on existing land use acreage, population, and development trends. The Future Land Use Element notes that future land use categories are intended to ensure that development does not occur before public infrastructure and facilities are in place. There are no public water and sewer facilities within three miles of the nearest mine boundary. An analysis of growth in the County demonstrates the likely areas for future growth, as directed by the Future Land Use Map, are adjacent to the City of Arcadia, the growth nodes of Nocatee and Fort Ogden, and the Lake Suzy area.

For these reasons, there is no substantial residential or commercial development to deter. As for improvement or development of agricultural uses on adjoining properties, the proposed mining use is more compatible with agricultural improvements or developments than residential or commercial uses. Mining on adjacent land does not restrict in any way the use of agricultural lands for pasturing of cattle, production of citrus, or cultivation of row crops.

Further, mining activities proposed to be conducted at the DeSoto Mine are not anticipated to increase noise at property lines to levels that exceed the standards of DeSoto County. Mosaic has conducted numerous noise studies at its operating facilities that utilize equipment and methods similar, if not identical, to those proposed for the DeSoto Mine that indicate all levels will be below required levels. Similar studies on vibration have indicated that vibration levels from mining activities will not cause damages to property outside of the project boundary. Appendix 7-5 of the MMP and OP application (on CD) contains example noise, vibration and light studies from the South Fort Meade and Four Corners Mines.

**13. Whether the proposed change will constitute a grant of special privilege to an individual owner as contrasted with the public welfare.**

*The application states the proposed change will not constitute a grant of special privilege to an individual owner as contrasting with the public welfare. The proposed change is within lands identified by the County for phosphate mining. In addition, there are lands within the GPMOD under different ownership and not subject of this application that could request similar approvals from the County.*

Comment acknowledged.

**14. Whether there are substantial reasons why the property cannot be used in accord with existing zoning.**

*The application notes that the current A-10 zoning district does not allow phosphate mining. The proposed rezoning will ensure the orderly development of phosphate mining activities*

*within the GPMOD. Notwithstanding, the application does not address why property that will not be mined within the Comprehensive Plan's planning horizon should be rezoned at this time. If the property will not be mined within this planning horizon, there is an argument the application is premature.*

Response:

All mining within the proposed DeSoto Mine boundary is currently planned for completion within the Comprehensive Plan's 2040 planning horizon. Map 3-1, Tab 13 Supplemental Information Document to the MMP and OP application illustrates the planned mining sequence. The mining phase of the DeSoto Mine is anticipated to occur over the course of a 15-year period. Completion of reclamation of mined and disturbed areas is anticipated to lag mining by approximately 7 years, concluding approximately 22 years following mine startup. The intent of the GPMOD cannot be implemented without the requested zoning.

**15. Whether the change suggested is out of scale with the surrounding area.**

*The application states the change is not out of scale with the surrounding area. The proposed change is consistent with the adopted GPMOD, which identifies areas recognized for phosphate mining and related activities.*

*The Development Director notes that the phrase "out-of-scale" is not defined and can be interpreted various ways. With regard to the size of the area being rezoned, it can be argued it is out-of-scale with the surrounding area, especially if that area is not going to be mined within the Comprehensive Plan's 2040 planning horizon.*

Response:

The area proposed for rezoning is surrounded by land zoned A-10 and used predominantly for agricultural purposes. Phosphate mining is a rolling process, utilizing, at any given time, much less acreage than agricultural operations. Conversely, agricultural operations typically utilize all the land at one time. Thus, the proposed change will permit activity on a smaller scale than the surrounding area.

All mining within the proposed DeSoto Mine boundary is currently planned for completion within the Comprehensive Plan's 2040 planning horizon. Map 3-1, Tab 13 Supplemental Information Document to the MMP and OP application illustrates the planned mining sequence. The mining phase of the DeSoto Mine is anticipated to occur over the course of a 15-year period. Completion of reclamation of mined and disturbed areas is anticipated to lag mining by approximately 7 years, concluding approximately 22 years following mine startup.



Mr. Earl Hahn  
DeSoto Mine Rezoning Application  
Response to March 23, 2017 RAI  
October 23, 2017

We hope that the information contained in this response document assists you in the review the application. If you have additional comments or questions concerning this response document, please contact me at 813-500-6958 or at [Shelley.Thornton@mosaicco.com](mailto:Shelley.Thornton@mosaicco.com).

Sincerely,



Shelley Thornton, P.E.

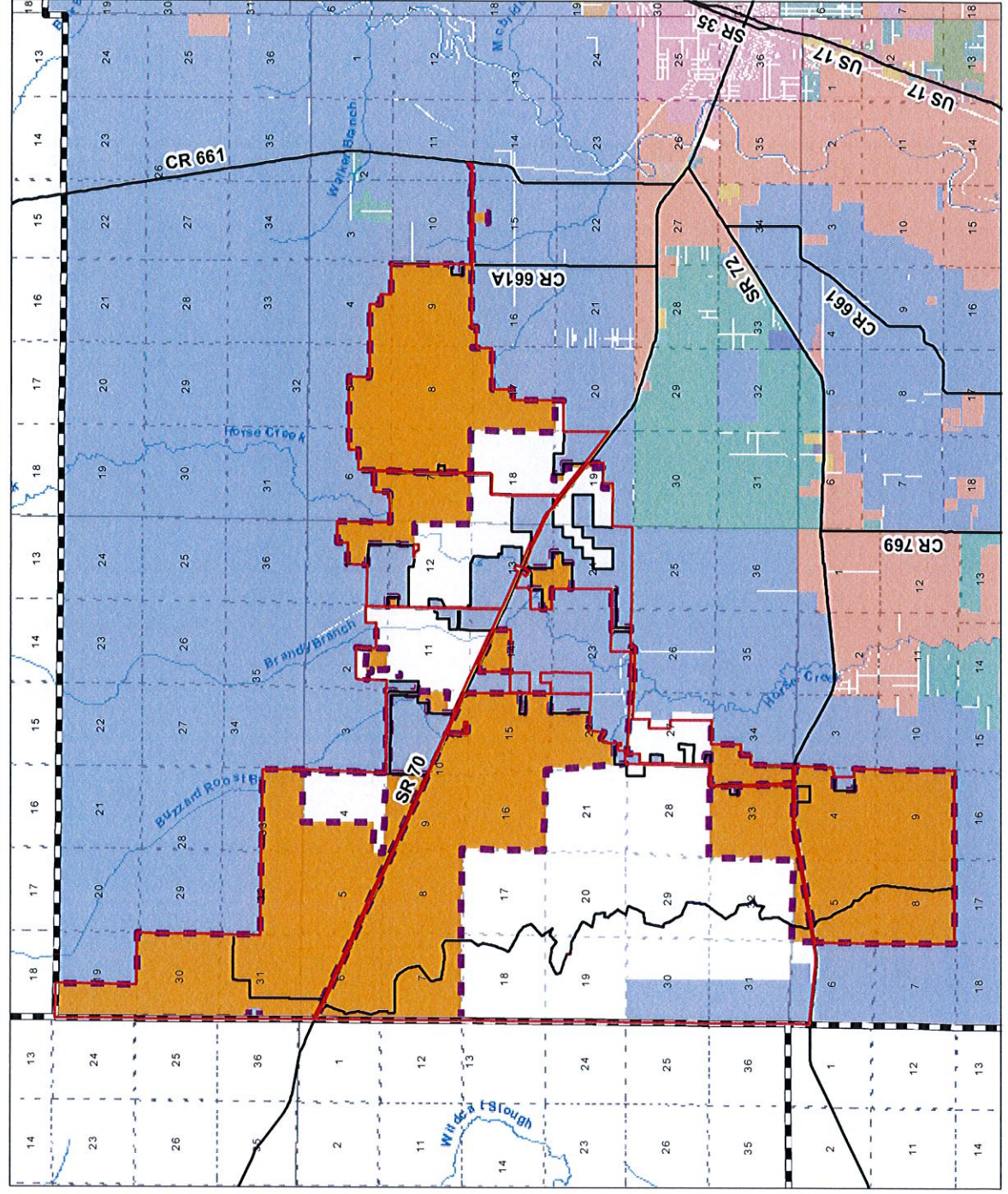
Enclosure:

cc: Don Conn – Conn & Buenaventura  
Beth Niec – Mosaic  
Jon Faletto – Mosaic  
Geri Waksler – McCrory Law Firm

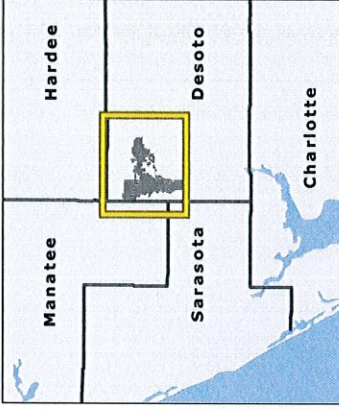
## EXHIBIT A



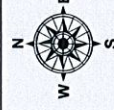
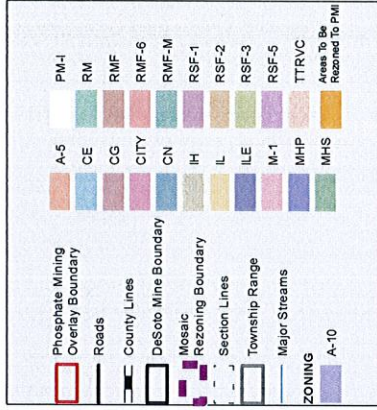
# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation



## Location Key



## Legend

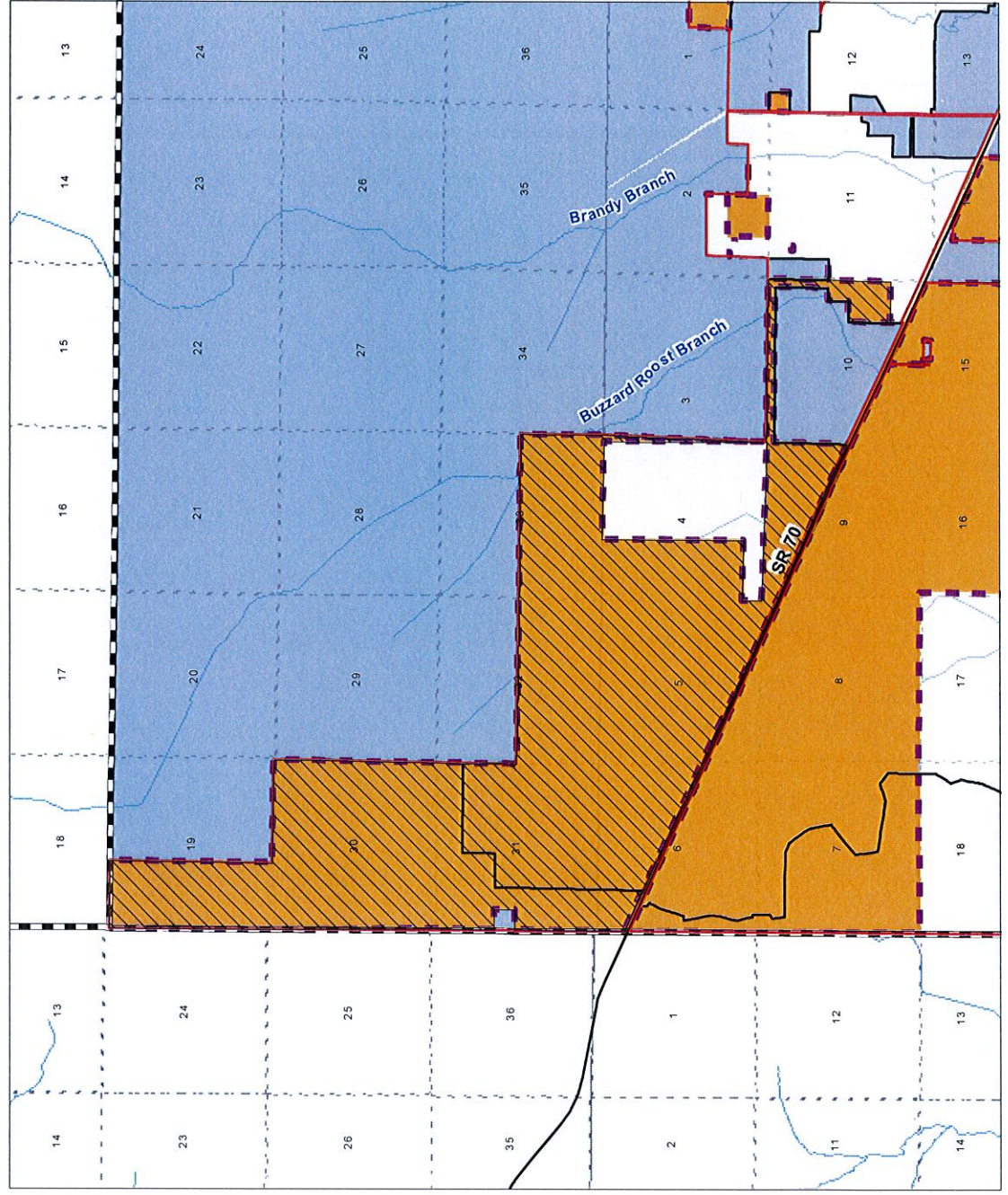


Map 3

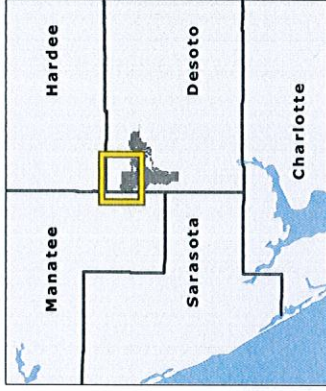
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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation

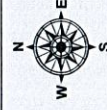


## Location Key



## Legend

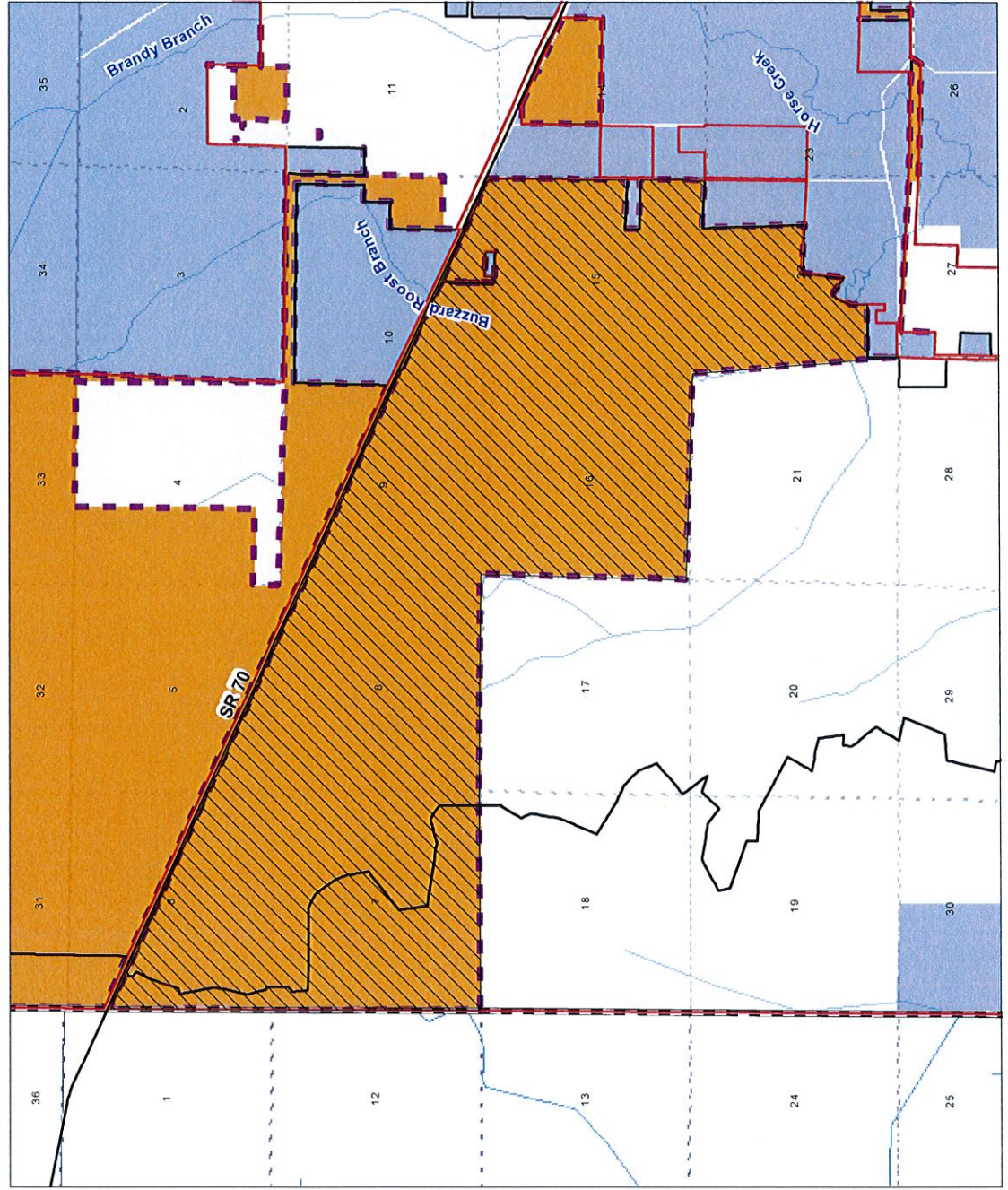
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|-----------------------------------|---------------|-------------------------------|
| Phosphate Mining Overlay Boundary | <b>ZONING</b> | A-10                          |
| Roads                             |               | M-1                           |
| County Lines                      |               | PM-I                          |
| DeSoto Mine Boundary              |               | Section Lines                 |
| Mosaic Re-zoning Boundary         |               | Township Range                |
| Areas To Be Re-zoned To PM-I      |               | Major Streams                 |
|                                   |               | Area Of Interest For Rezoning |



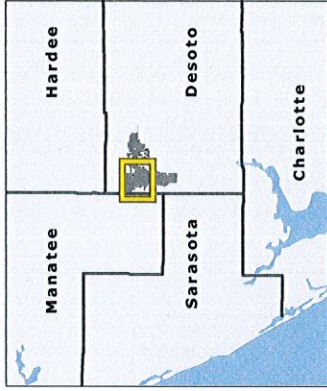
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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation

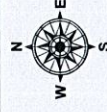


## Location Key



## Legend

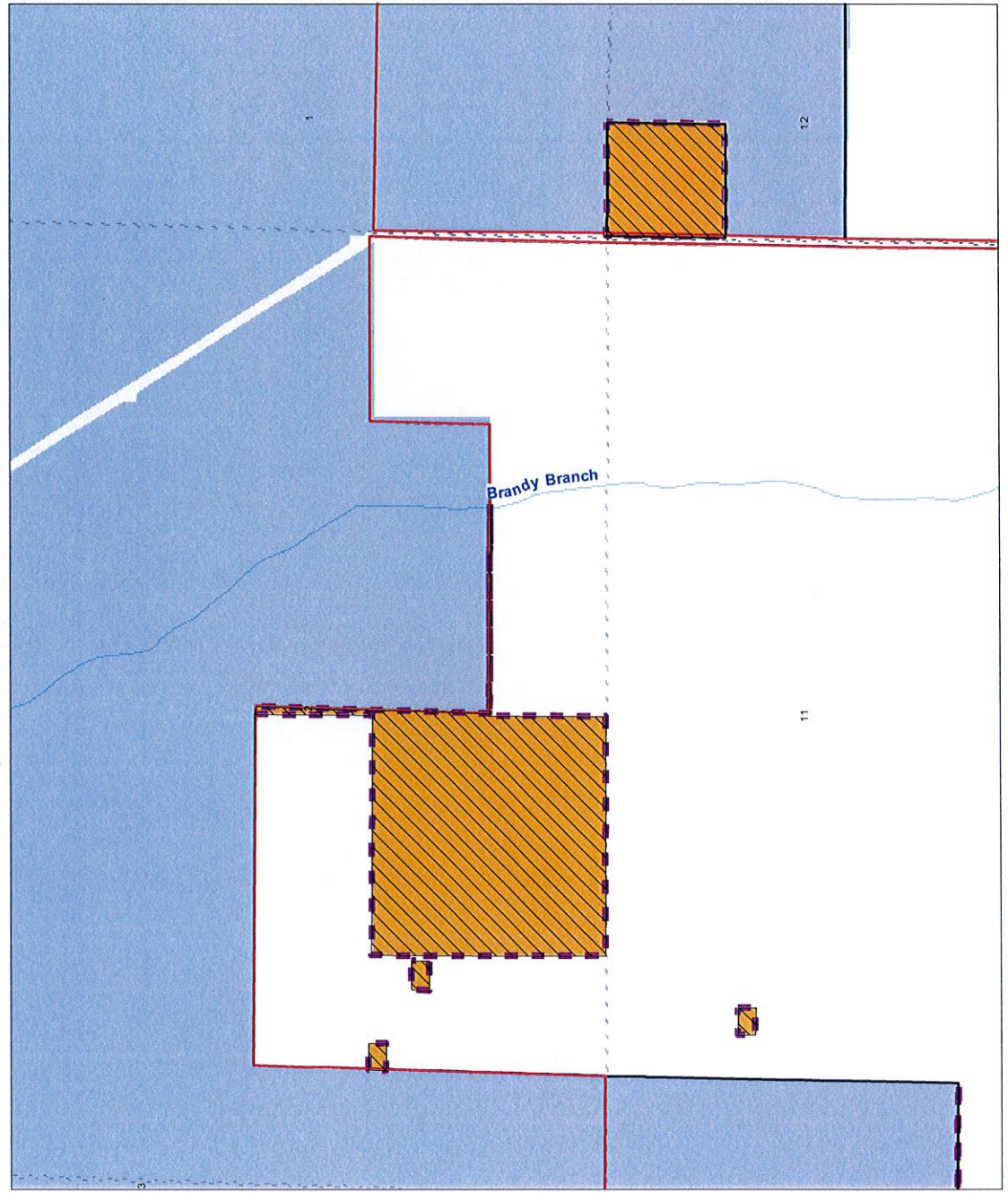
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- Phosphate Mining Overlay Boundary
  - A-10
  - PM-I
  - County Lines
  - Section Lines
  - DeSoto Mine Boundary
  - Township Range
  - Mosaic Rezoning Boundary
  - Major Streams
  - Areas To Be Re-Zoned To PM-I



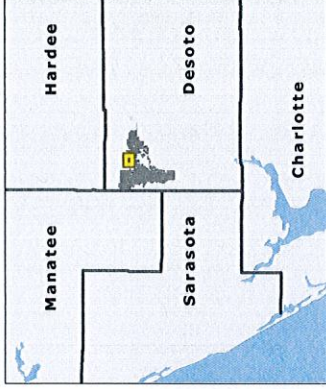
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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation

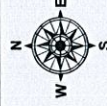


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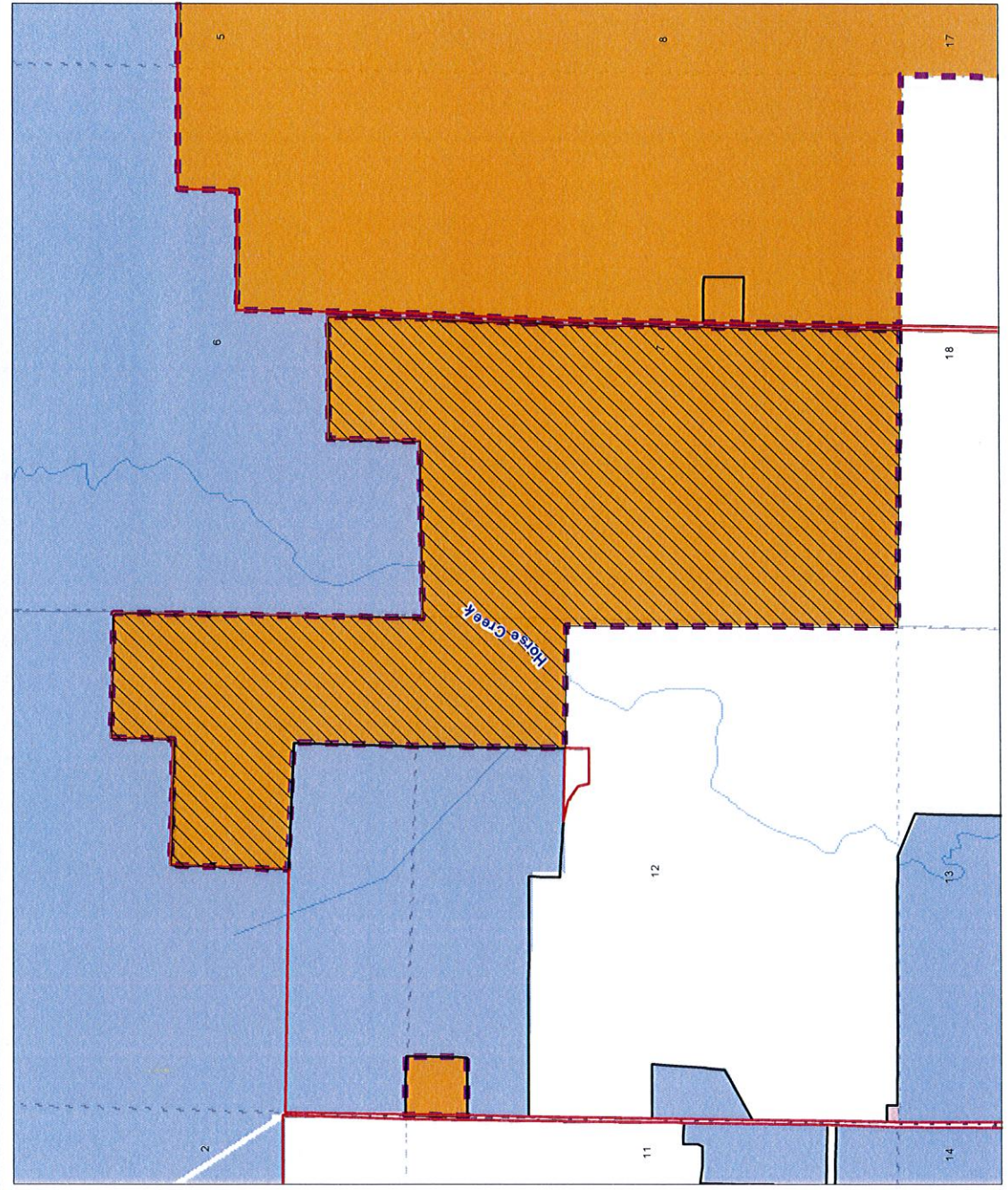
- ZONING**
- Phosphate Mining Overlay Boundary
  - A-10
  - M-1
  - PM-I
- Section Lines**
- County Lines
  - DeSoto Mine Boundary
  - Mosaic Re-zoning Boundary
  - Areas To Be Re-zoned To PM-I
  - Township Range
  - Major Streams
  - Areas Of Interest For Reasoning



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Tile 3 of 12



# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation



**Location Key**

**Legend**

**ZONING**

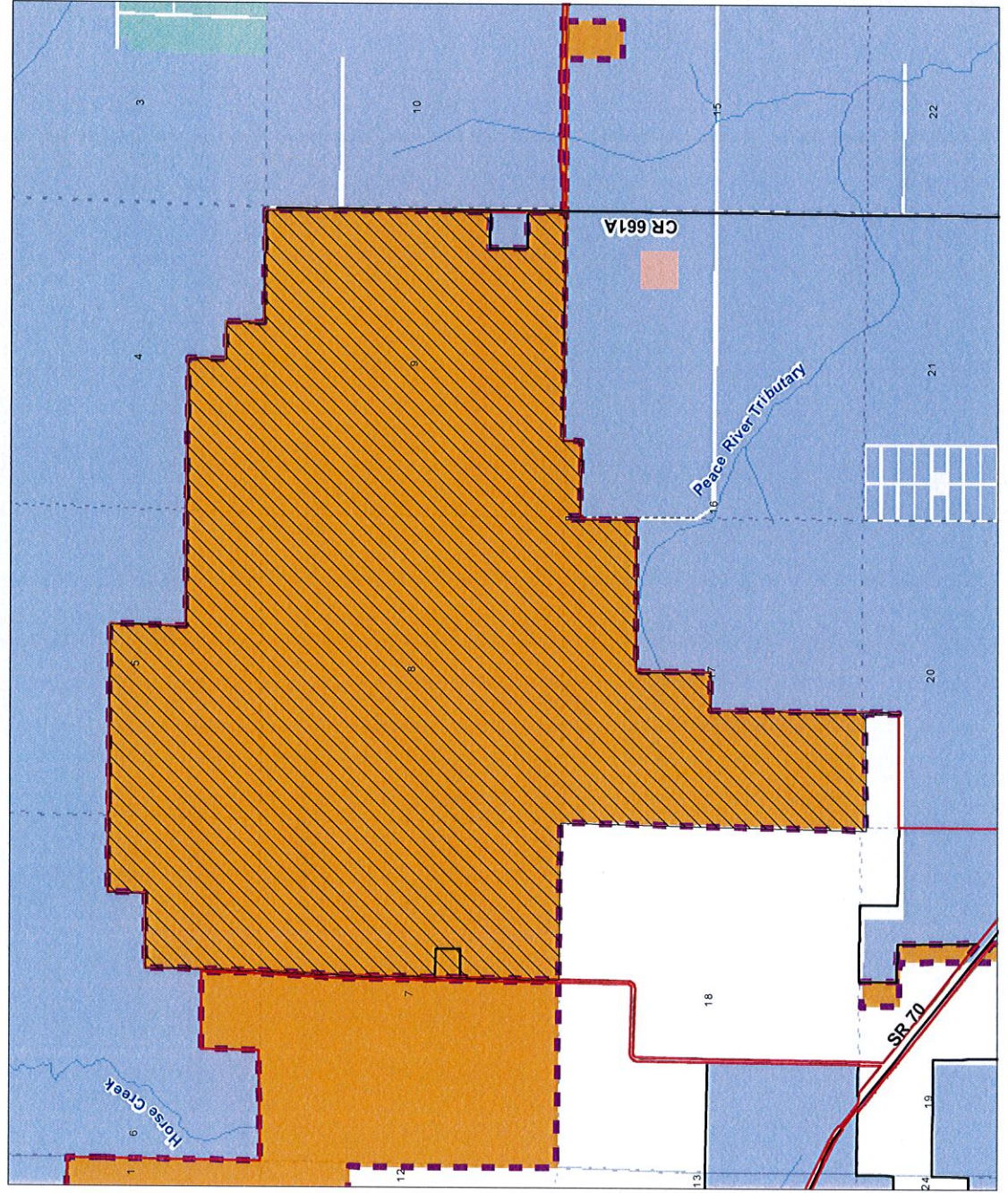
- Phosphate Mining Overlay Boundary
- Roads
- County Lines
- DeSoto Mine Boundary
- Mosaic Rezoning Boundary
- Area To Be Re-Zoned To PM-I
- A-10
- M-1
- PM-I
- Section Lines
- Township Range
- Major Streams
- Area Of Interest For Rezoning

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Title 4 of 12

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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation



## Location Key



## Legend

- |                                   |                |                      |                                 |                              |
|-----------------------------------|----------------|----------------------|---------------------------------|------------------------------|
| Phosphate Mining Overlay Boundary | A-10           | A-5                  | PM-I                            | RM                           |
| Roads                             | County Lines   | DeSoto Mine Boundary | Mosaic Re-zoning Boundary       | Areas To Be Re-zoned To PM-I |
| Section Lines                     | Township Range | Major Streams        | Areas Of Interest For Re-zoning |                              |

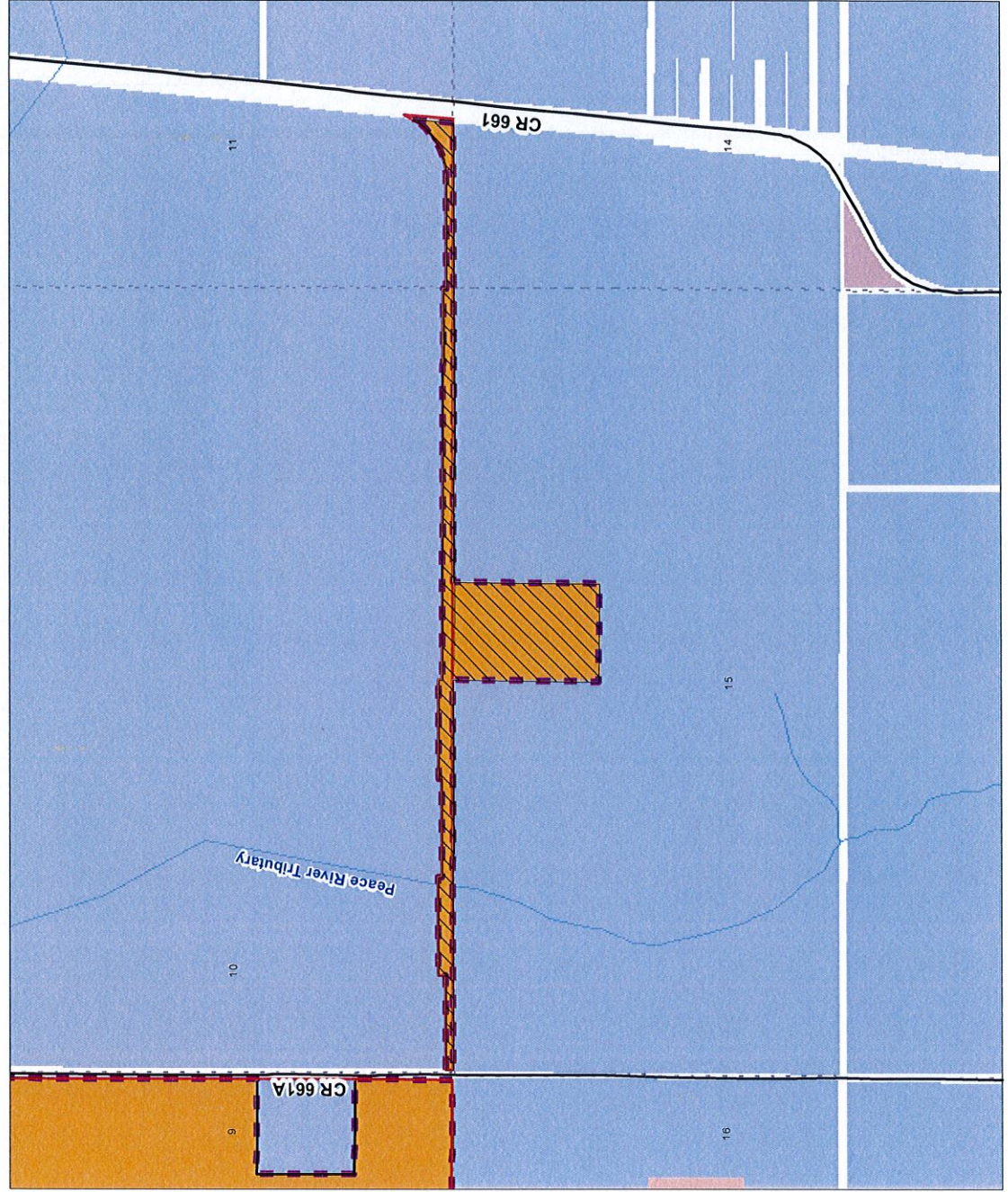


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Title 5 of 12

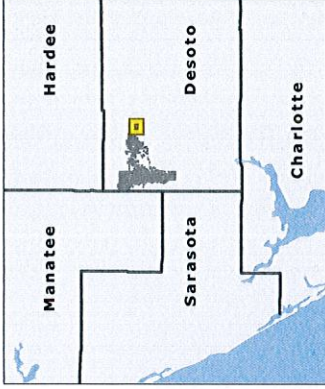
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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation



## Location Key



## Legend

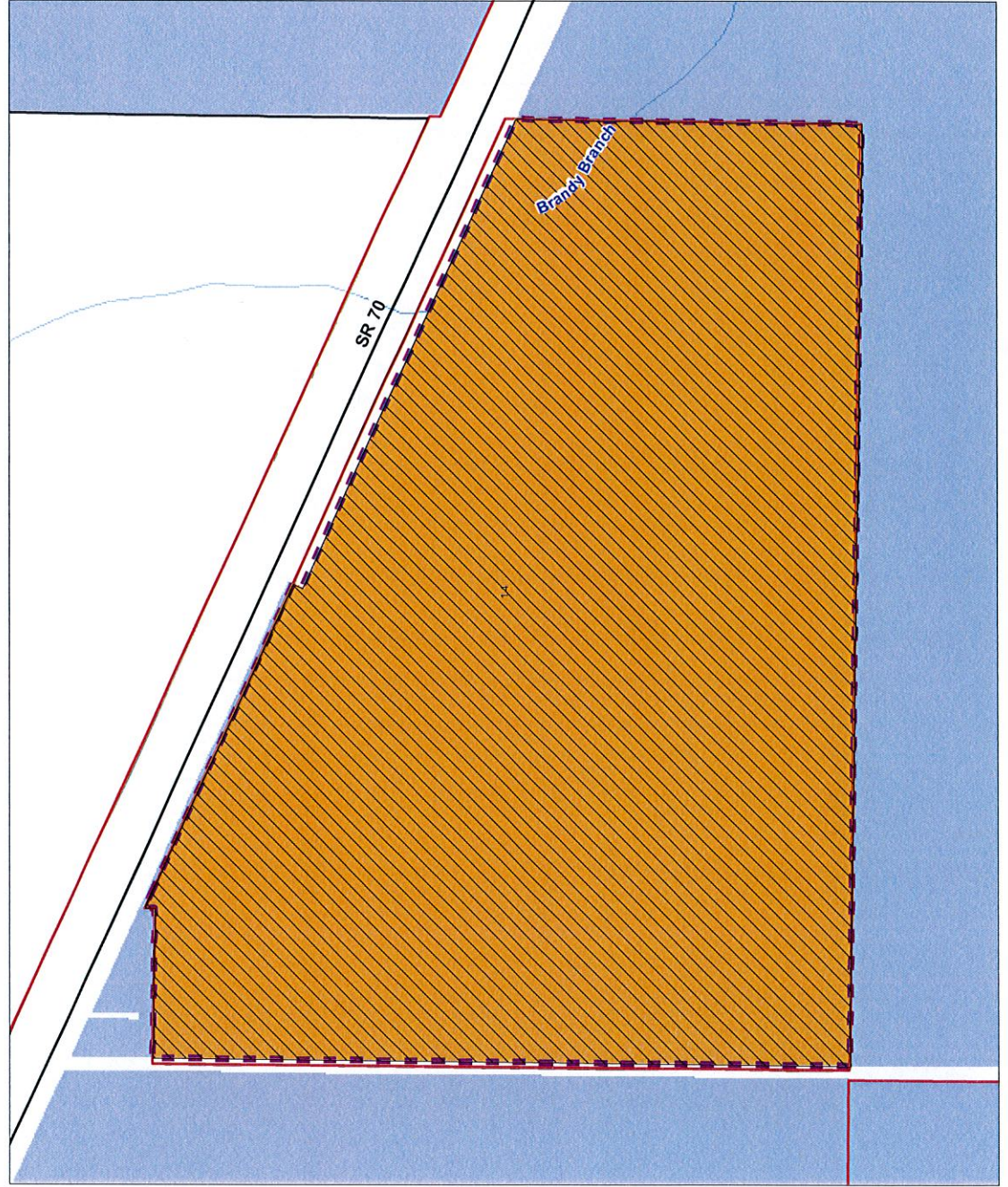


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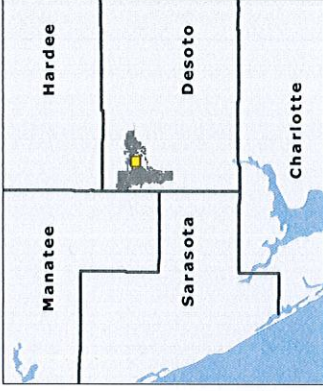
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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation

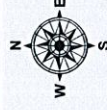


## Location Key



## Legend

- |                                   |                              |                               |
|-----------------------------------|------------------------------|-------------------------------|
| Phosphate Mining Overlay Boundary | ZONING A-10                  | Section Lines                 |
| Roads                             | PM-I                         | Township Range                |
| County Lines                      | DeSoto Mine Boundary         | Major Streams                 |
| Mosaic Rezoning Boundary          | Areas To Be Re-Zoned To PM-I | Area Of Interest For Rezoning |

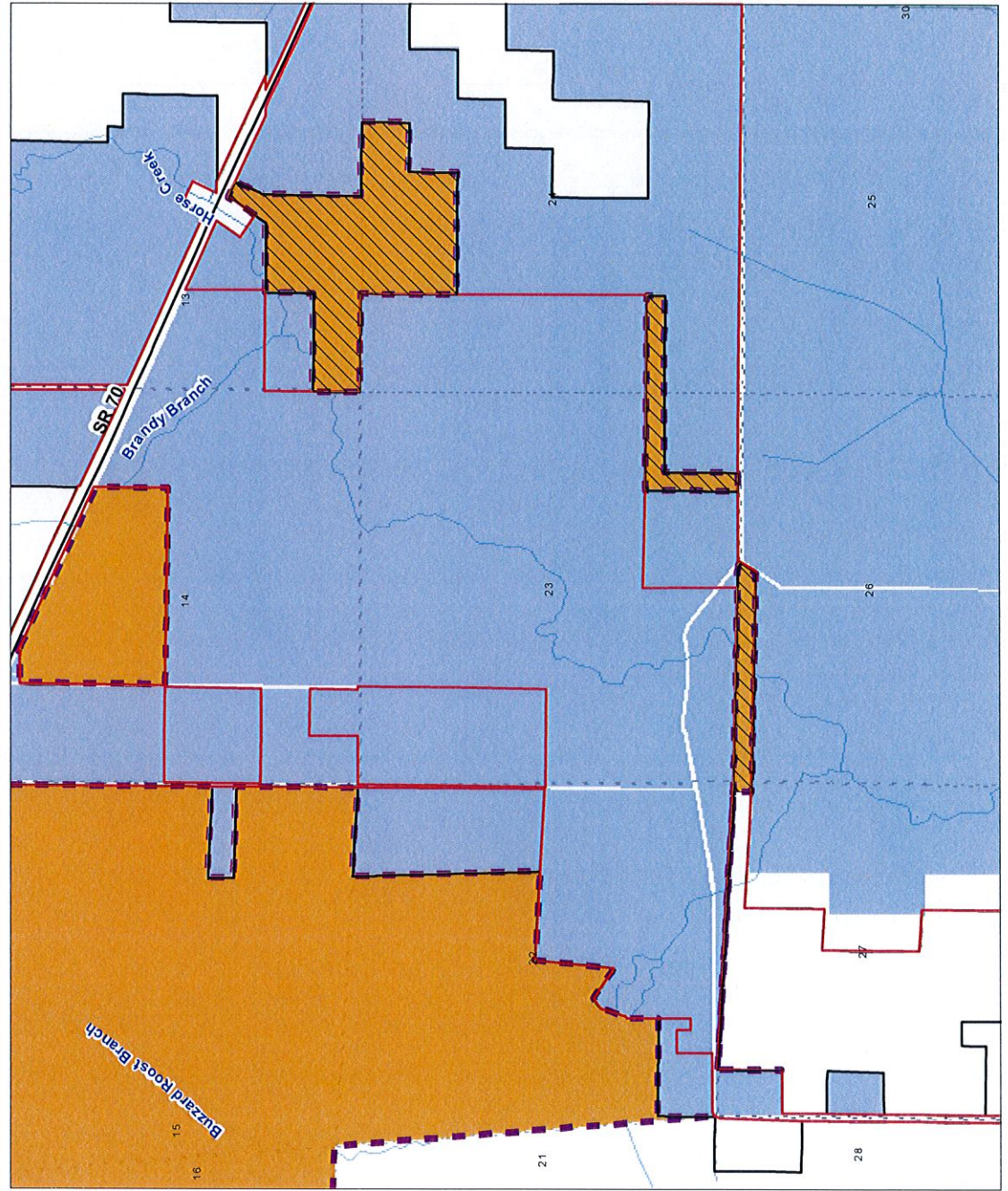


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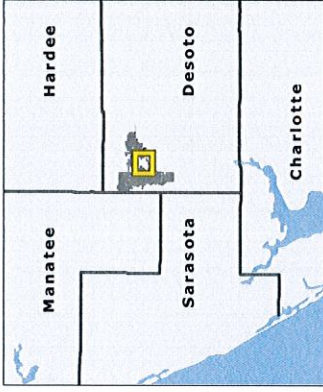
Title 7 of 12



# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation



## Location Key



## Legend

- |                                   |                                |
|-----------------------------------|--------------------------------|
| Phosphate Mining Overlay Boundary | ZONING A-10                    |
| Roads                             | ZONING PM-I                    |
| County Lines                      | ZONING RM                      |
| DeSoto Mine Boundary              | Section Lines                  |
| Mosaic Rezoning Boundary          | Township Range                 |
| Areas To Be Re-zoned To PM-I      | Major Streams                  |
| Areas Of Interest For Rezoning    | Areas Of Interest For Rezoning |



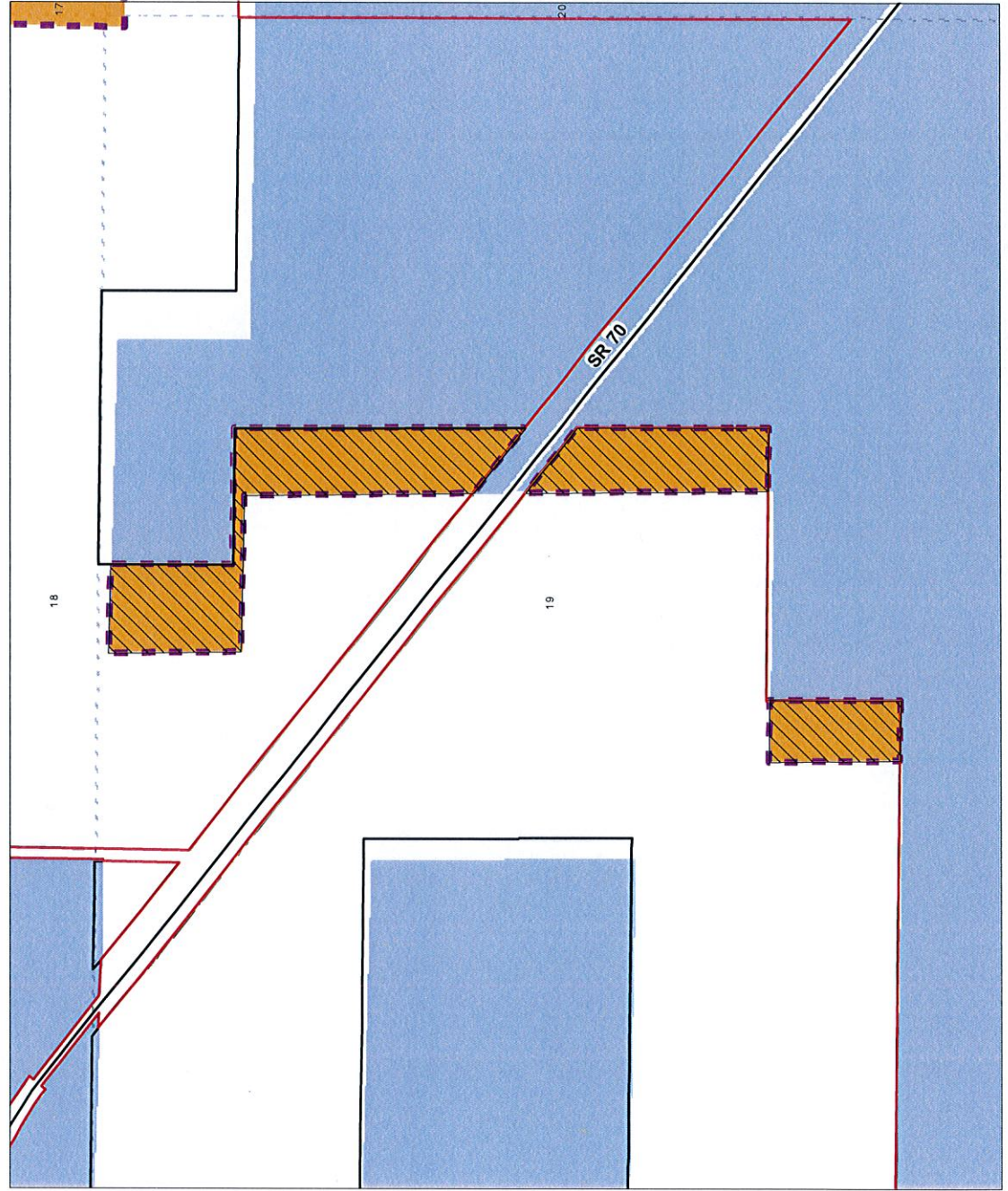
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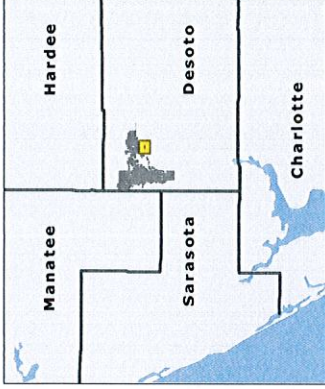
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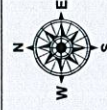


## Location Key



## Legend

- |                                   |               |      |                                |
|-----------------------------------|---------------|------|--------------------------------|
| Phosphate Mining Overlay Boundary | <b>ZONING</b> | A-10 | Section Lines                  |
| Roads                             |               | PM-I | Township Range                 |
| County Lines                      |               |      | Major Streams                  |
| DeSoto Mine Boundary              |               |      | Areas Of Interest For Rezoning |
| Mosaic Rezoning Boundary          |               |      |                                |
| Areas To Be Re-Zoned To PMI       |               |      |                                |

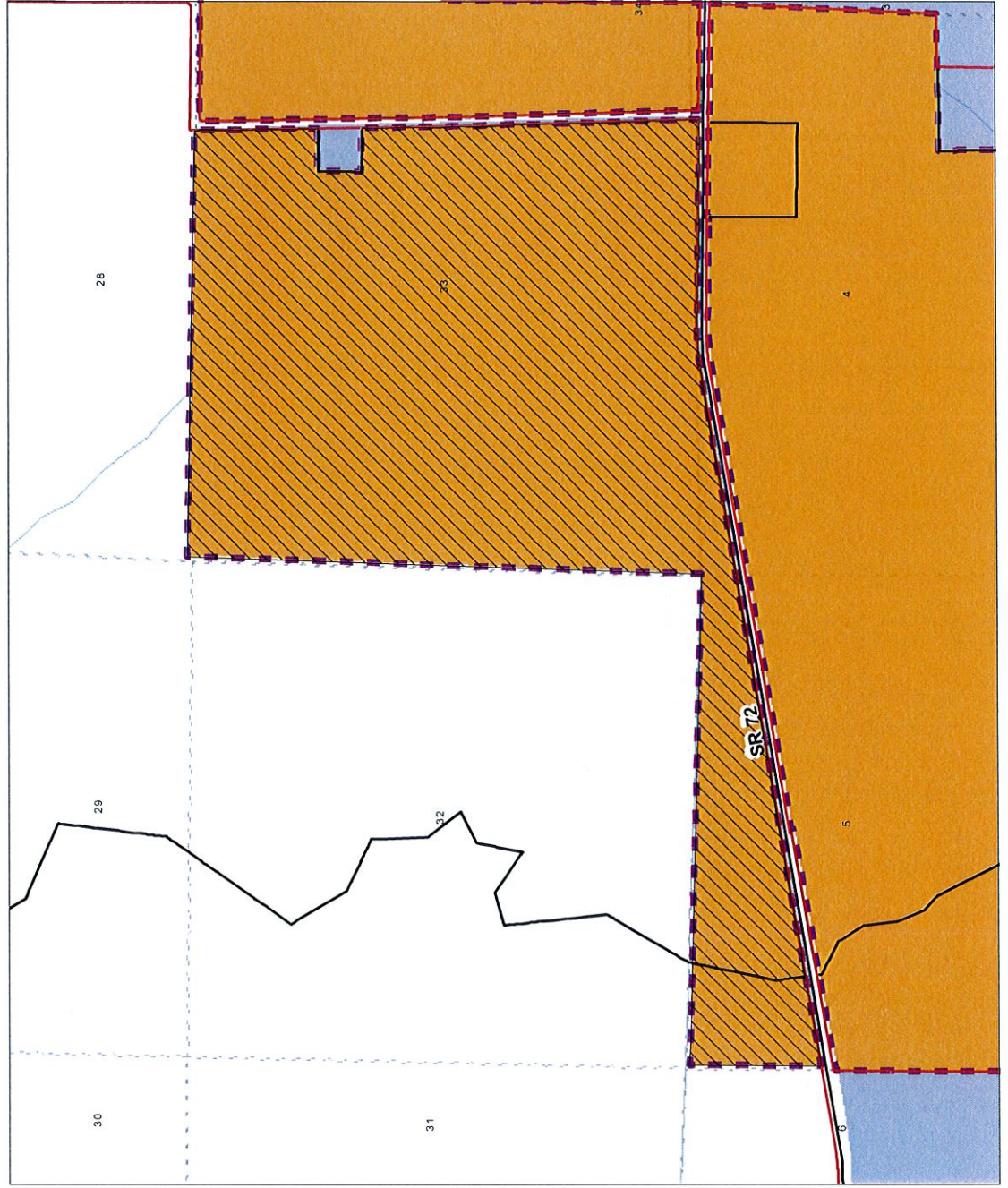


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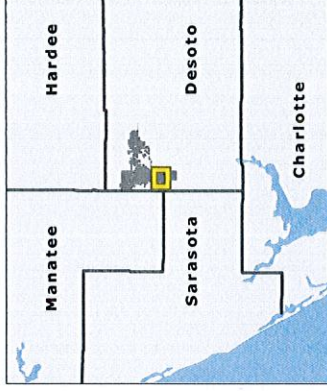
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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation

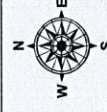


## Location Key



## Legend

- ZONING**
- Phosphate Mining Overlay Boundary
  - Roads
  - County Lines
  - DeSoto Mine Boundary
  - Mosaic Rezoning Boundary
  - Area To Be Re-Zoned To PM-I
- ZONING**
- A-10
  - PM-I
  - Section Lines
  - Township Range
  - Major Streams
  - Area Of Interest For Rezoning

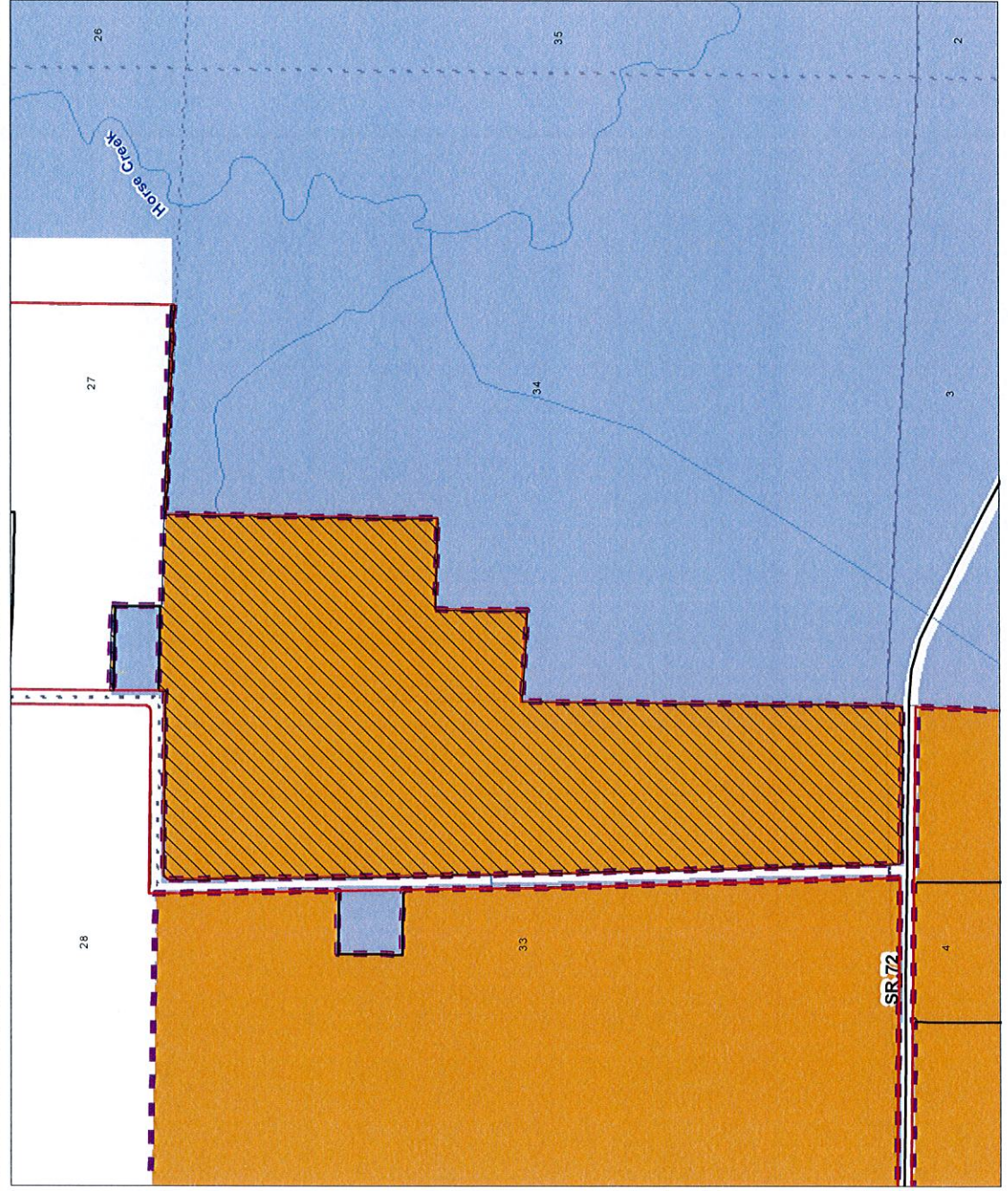


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Tile 10 of 12

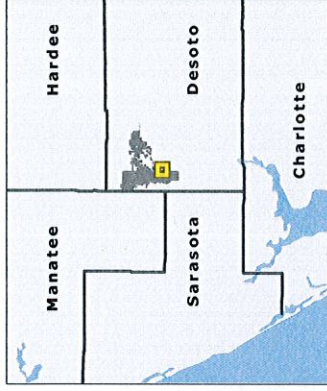
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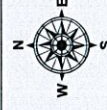
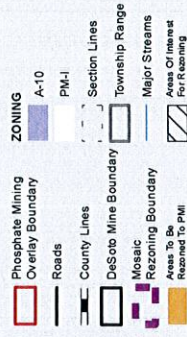
# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation



## Location Key



## Legend



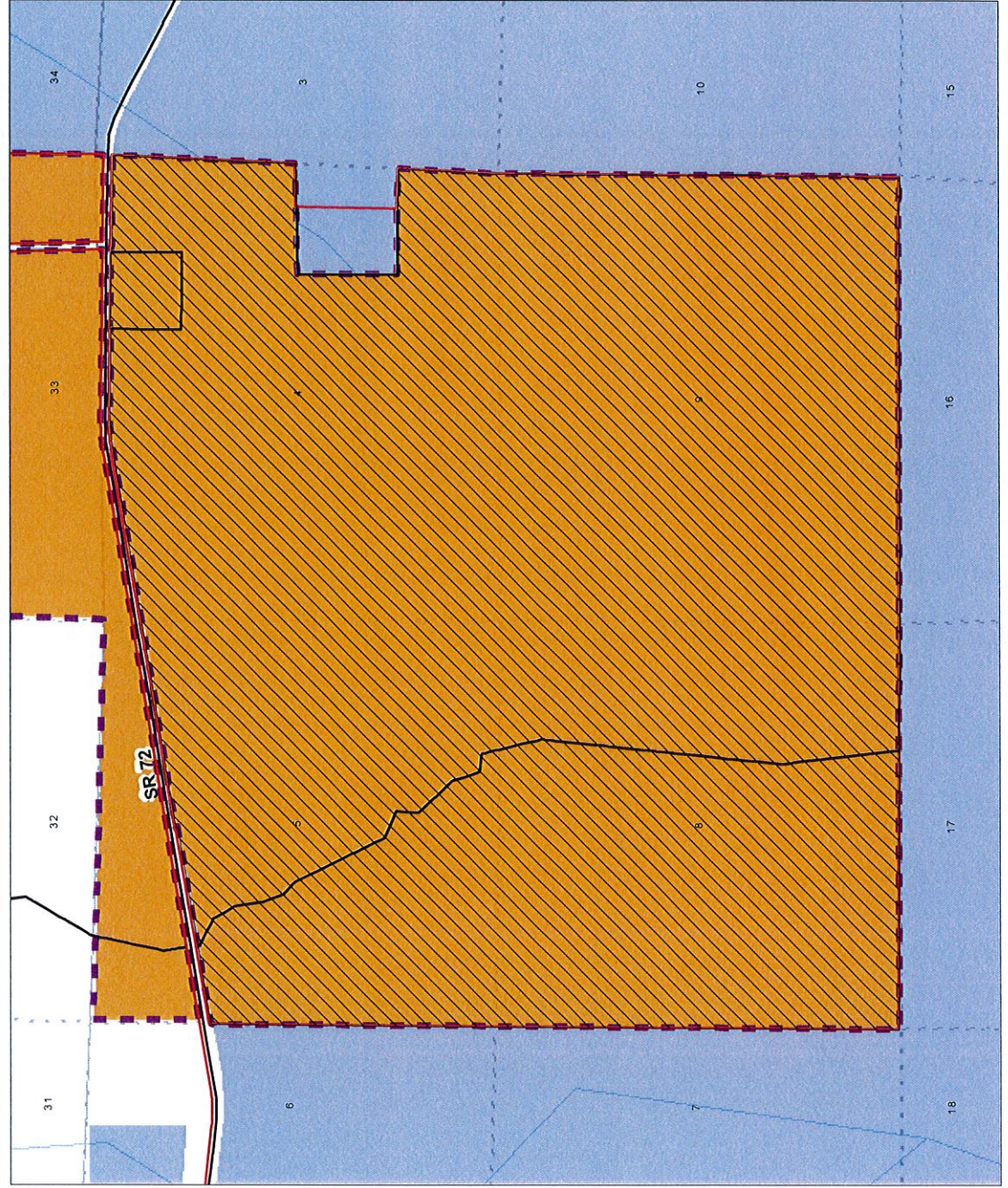
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Title 11 of 12

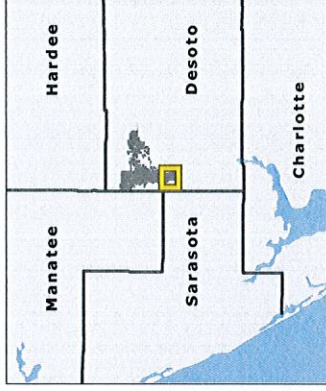
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# DeSoto Phosphate Overlay Zoning Map Areas To Be Re-Zoned To PM-I Designation

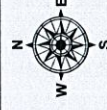


## Location Key



## Legend

- Phosphate Mining Overlay Boundary
- Roads
- County Lines
- DeSoto Mine Boundary
- Mosaic Rezoning Boundary
- Area To Be Re-Zoned To PM-I
- ZONING
  - A-10
  - PM-I
- Section Lines
- Township Range
- Major Streams
- Area Of Interest For Rezoning



Not To Scale  
Title 12 of 12