

NORTHROP GRUMMAN REZONE



GREATER SALT LAKE
**Municipal Services
District**

Planning and Development Services

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msd.utah.gov

File # REZ2022-000535

Zoning Map Amendment

Public Body: Salt Lake County Council

Meeting Date: _____, 2022

Parcel ID: Portions of 20-06-100-001 and 20-06-200-001

Current Zone: A-20 (Agricultural Zone)

Property Address: 4098 South 8400 West (Legal Address) Approximately 4400 South 9200 West (Actual Location)

Request: Amend the Zoning Map from A-20 (Agricultural Zone) to M-2 (Manufacturing Zone) to allow the existing rocket motor manufacturing to expand on 35 acres. The area proposed for rezone includes the entire area to be disturbed.

Planner: Brian Tucker

Applicant Name: Northrop Grumman (Douglas Farley, Representative)

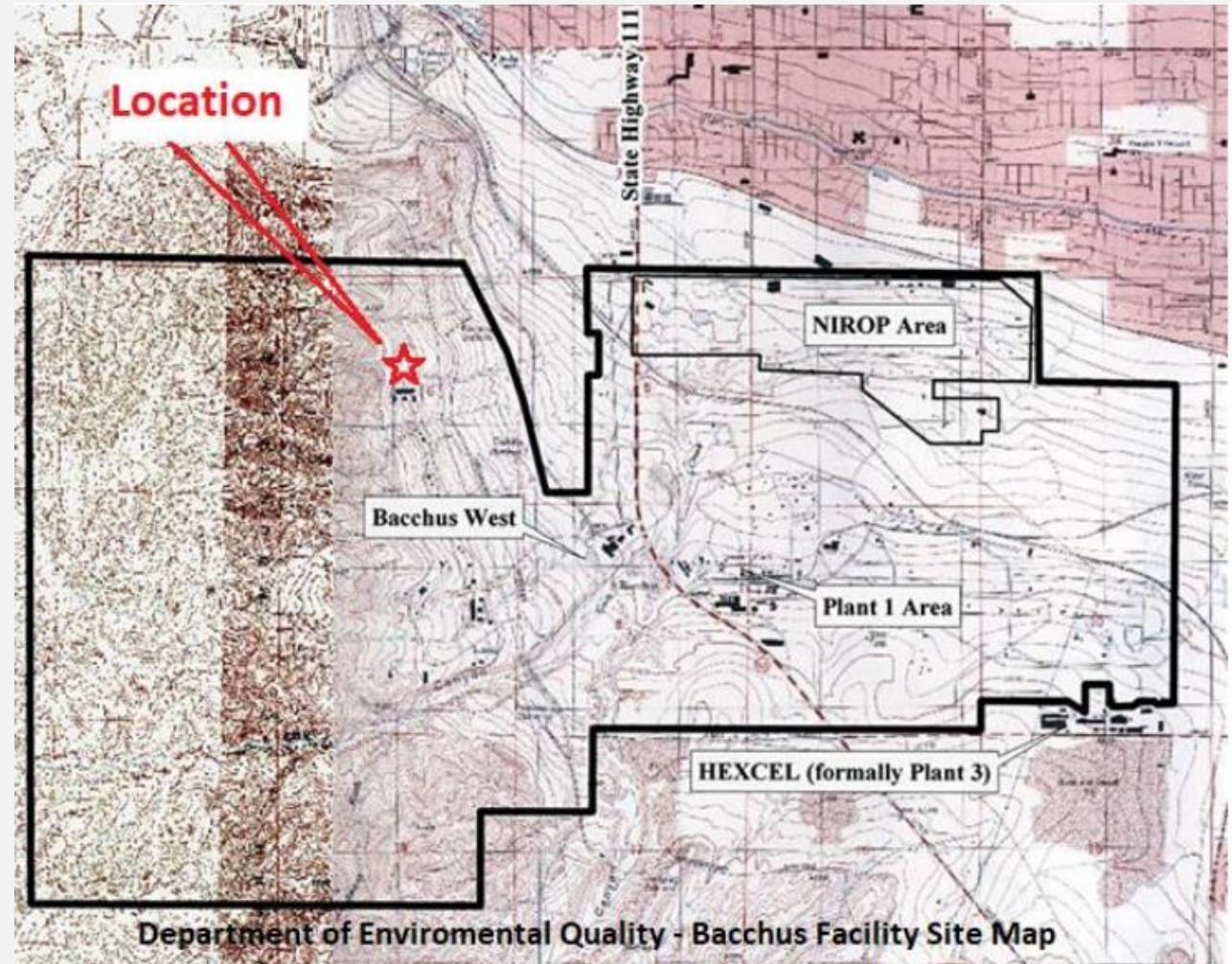
APPROXIMATELY 4400 SOUTH 9200 WEST (ACTUAL LOCATION)
4098 SOUTH 8400 WEST (LEGAL ADDRESS)

SITE & VICINITY DESCRIPTION

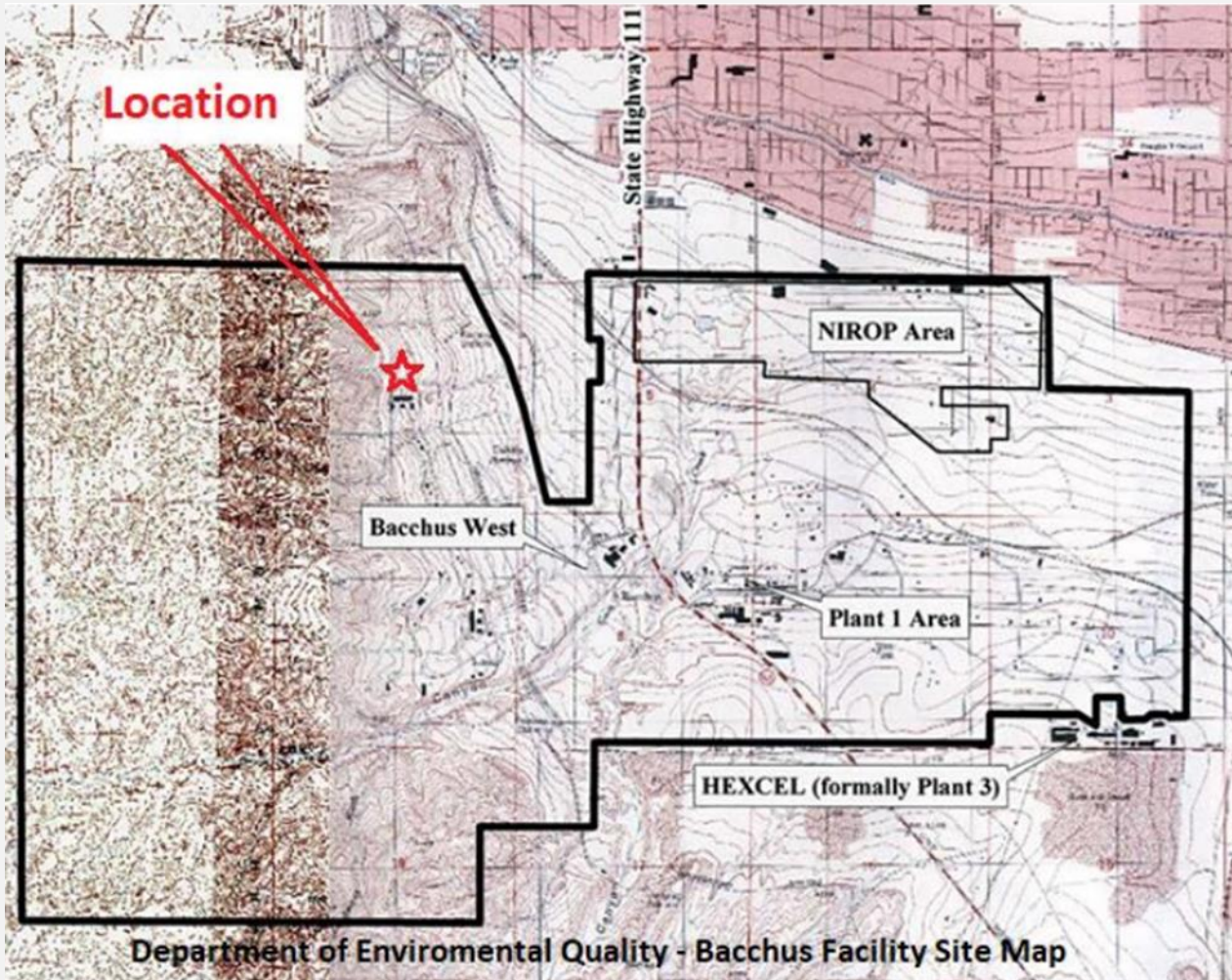


LOCATION

- Project area located 0.75 miles south and west of the Magna
- 2.5 miles south of Magna Main Street
- Project area at north end of existing Northrop Grumman Plant
- Extension of the existing rocket motor assembly line
- Bacchus West portion of the Hercules Bacchus Plant



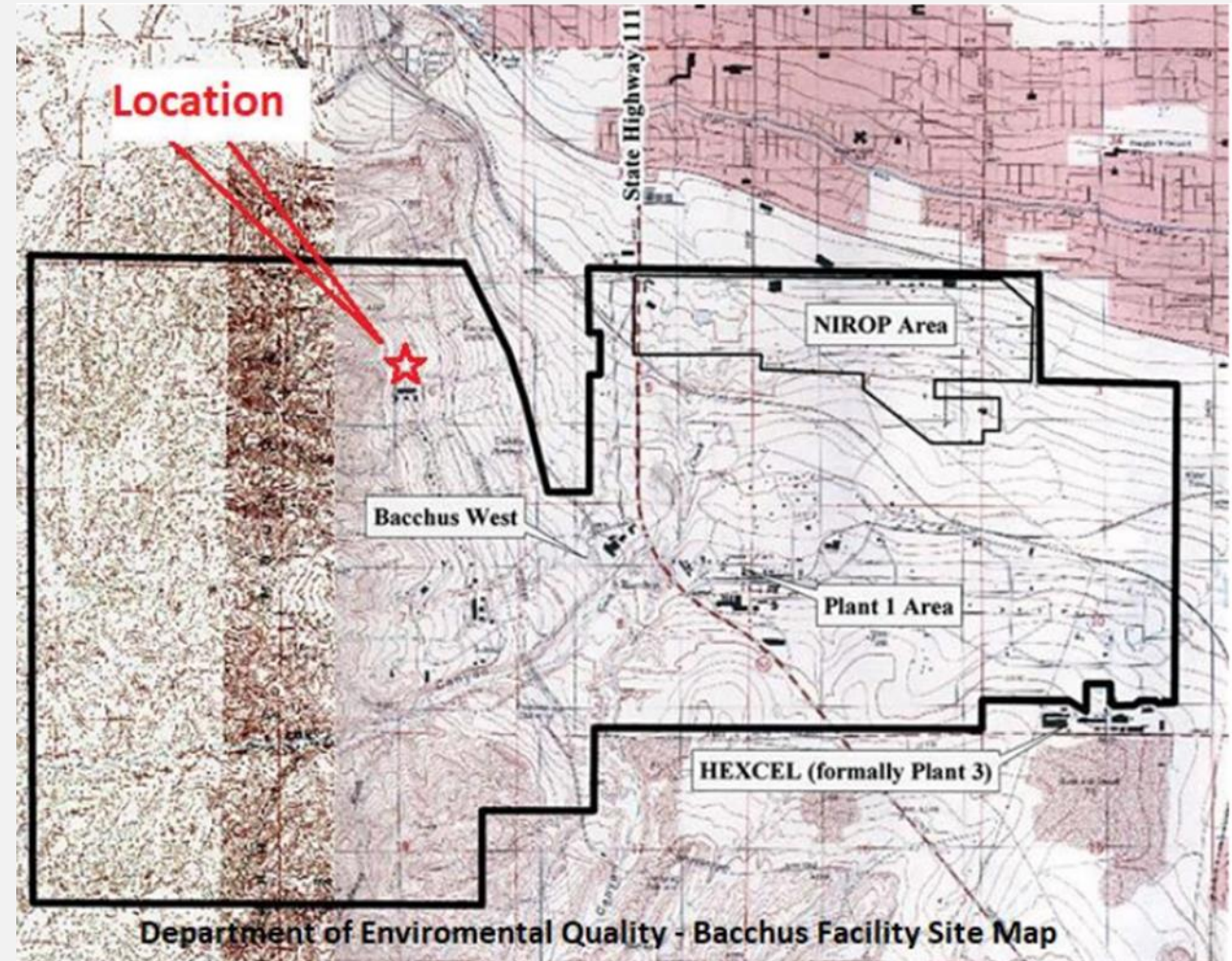
PROJECT BACKGROUND



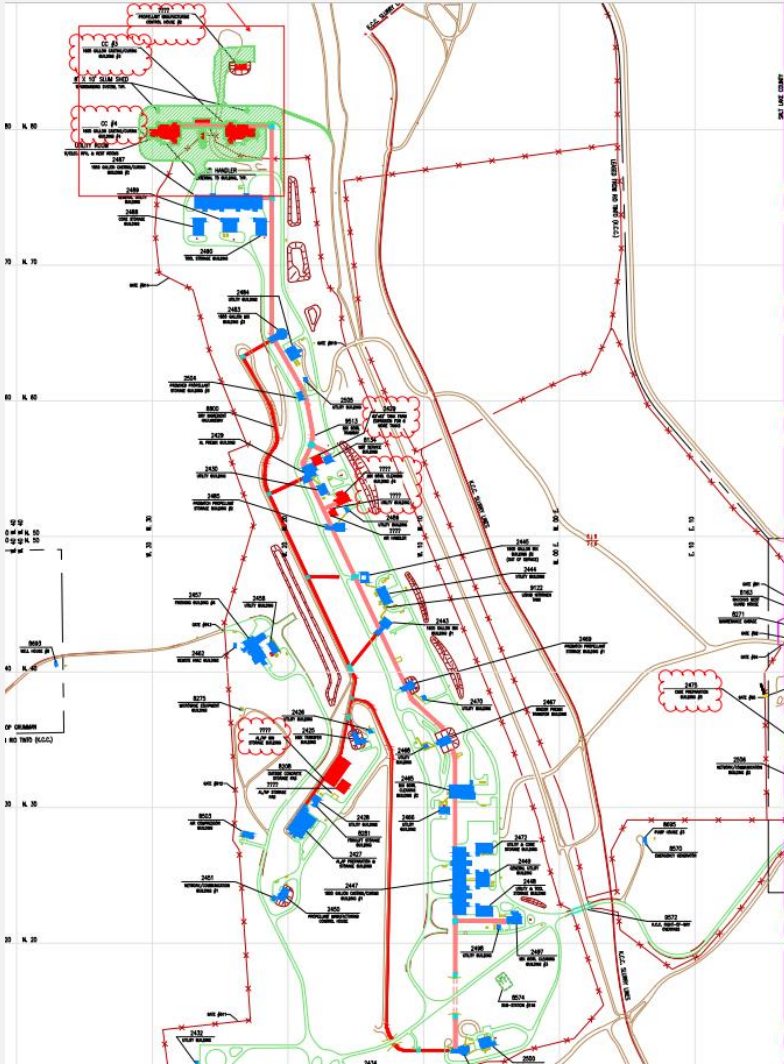
- Hercules Bacchus Plant established 1915, producing commercial blasting powder
- Plant renovated into a modern solid rocket propulsion facility in 1958
- Northrop Grumman Corporation acquired the Bacchus facility in 2018, operated as ATK Launch Systems
- Bacchus facility occupies 10,000 acres within West Valley City and unincorporated Salt Lake County
- Facility includes over 400 buildings

PROJECT BACKGROUND

- Plant produces and prepares propellant ingredients, manufactures solid propellants, and produces solid propellant rocket motors
- Plant I (Bacchus East) and the Naval Industrial Reserve Ordnance Plant (NIROP) located in West Valley
- Bacchus West located mostly in unincorporated Salt Lake County
- Bacchus West property owned by and leased from Kennecott Utah Copper Corporation



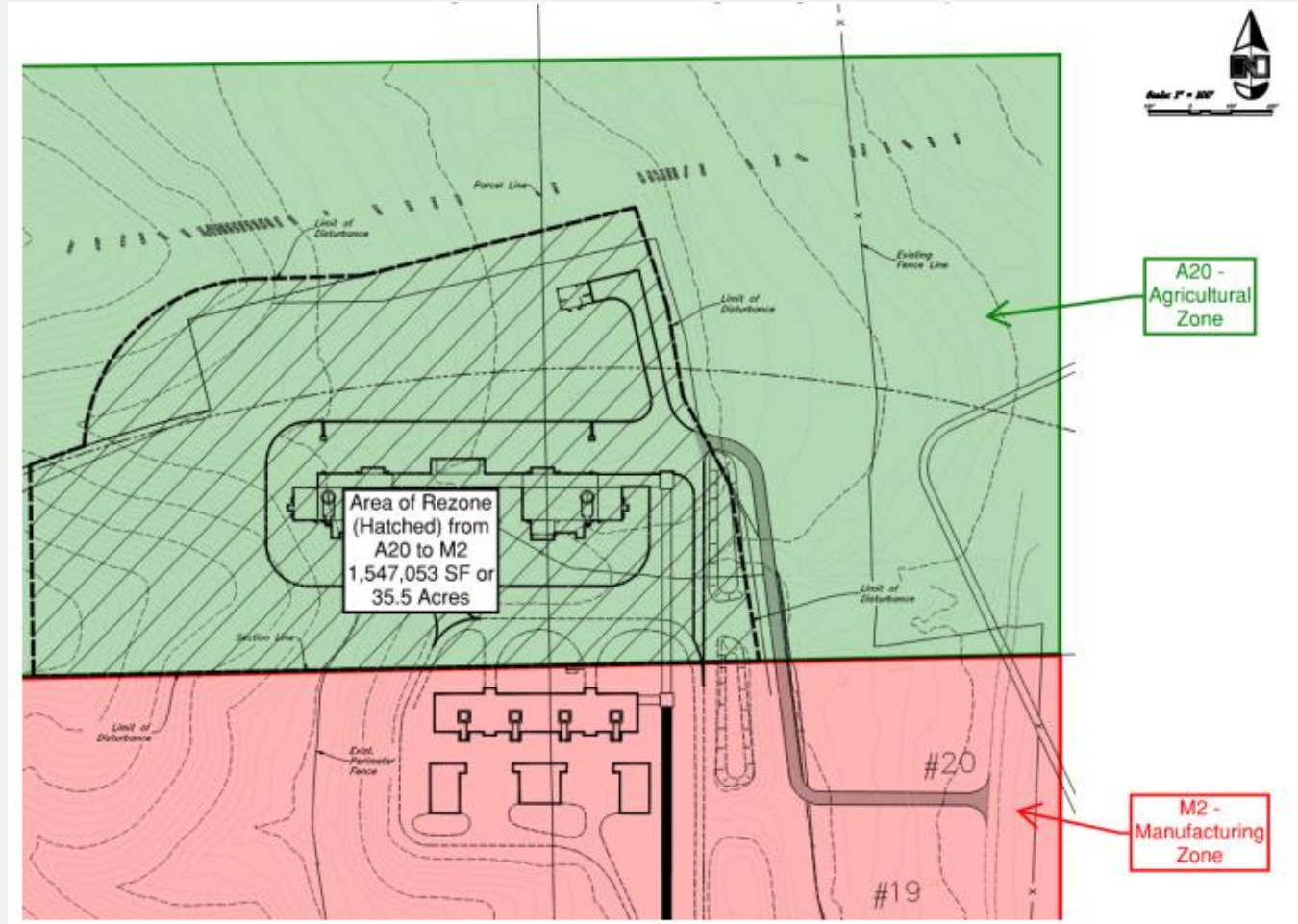
PROPOSAL



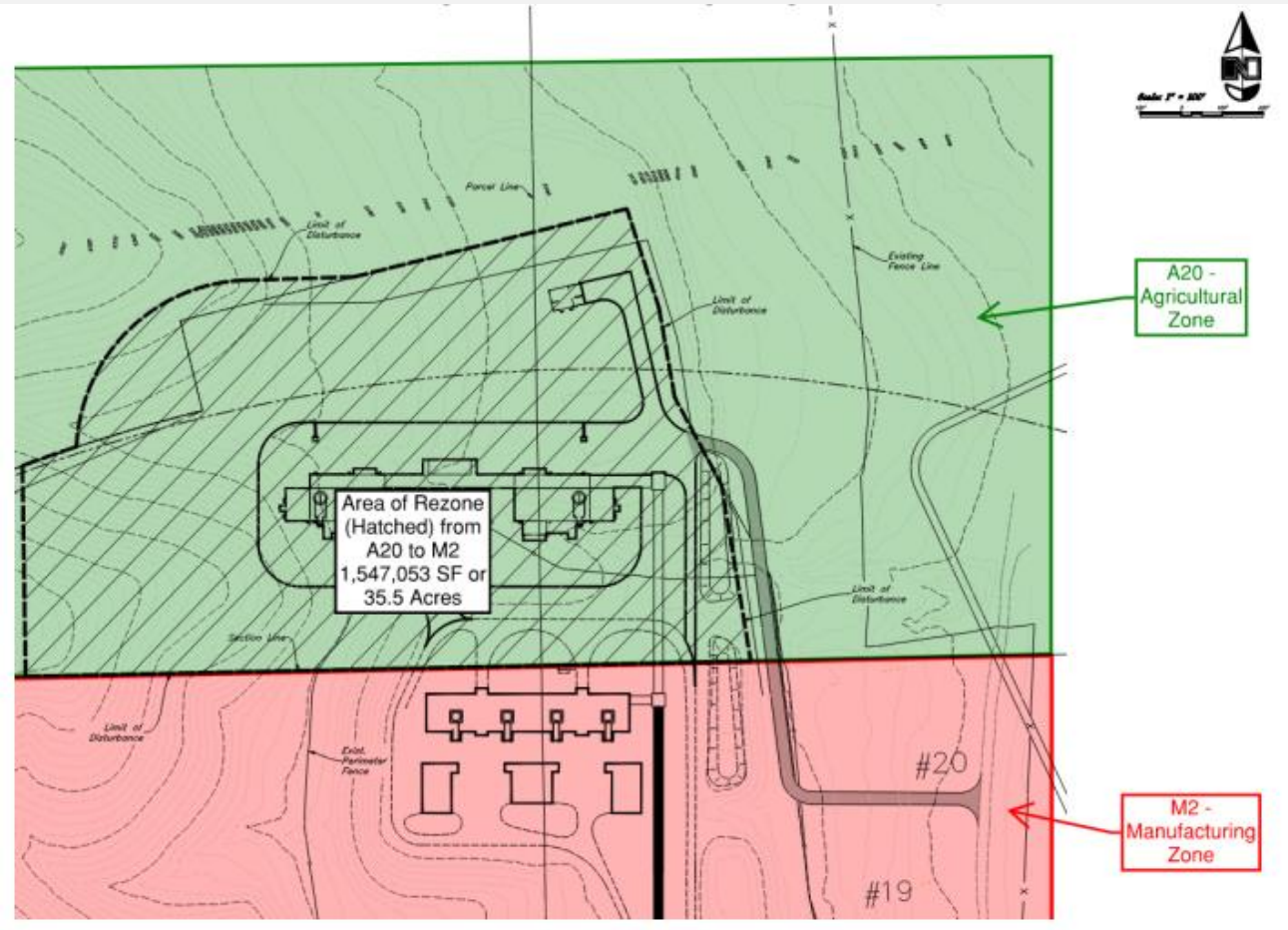
- Northrop Grumman the only builder of a specific rocket motor
- Proposing to upgrade the existing Bacchus facility and increase their production capacity due to increased demand
- Additional buildings for storage and manufacturing in WVC and SL Co
- Nine significant buildings are proposed in unincorporated Salt Lake County.
- Four buildings within current plant area
- Five buildings proposed north of the existing assembly line as an addition to that assembly line

PROPOSAL

- Five buildings are proposed to be in an area that is currently in the Agriculture Zone (A-20)
- Rocket motor manufacturing not a use allowed in the A-20 zone
- Existing plant located in Manufacturing (M-2) Zone
- Applicant is requesting the same (M-2) Manufacturing Zone for the proposed rezone area



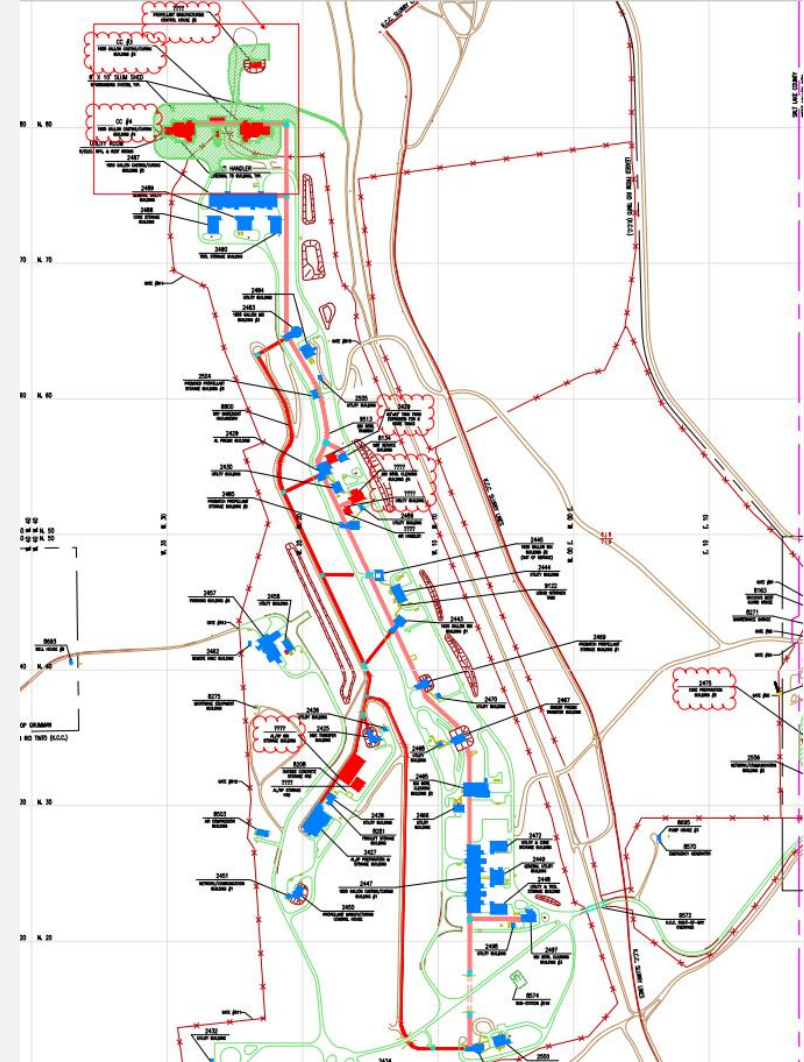
PROPOSAL



- Proposing a rezone of 35-acres
- Rezone area includes buildings and entire area to be graded
- Rezone allows Northrop Grumman to expand the capacity of the existing rocket motor facility along the west bench
- Expanded plant would continue to produce the same rocket motors as the existing plant but with expanded capacity

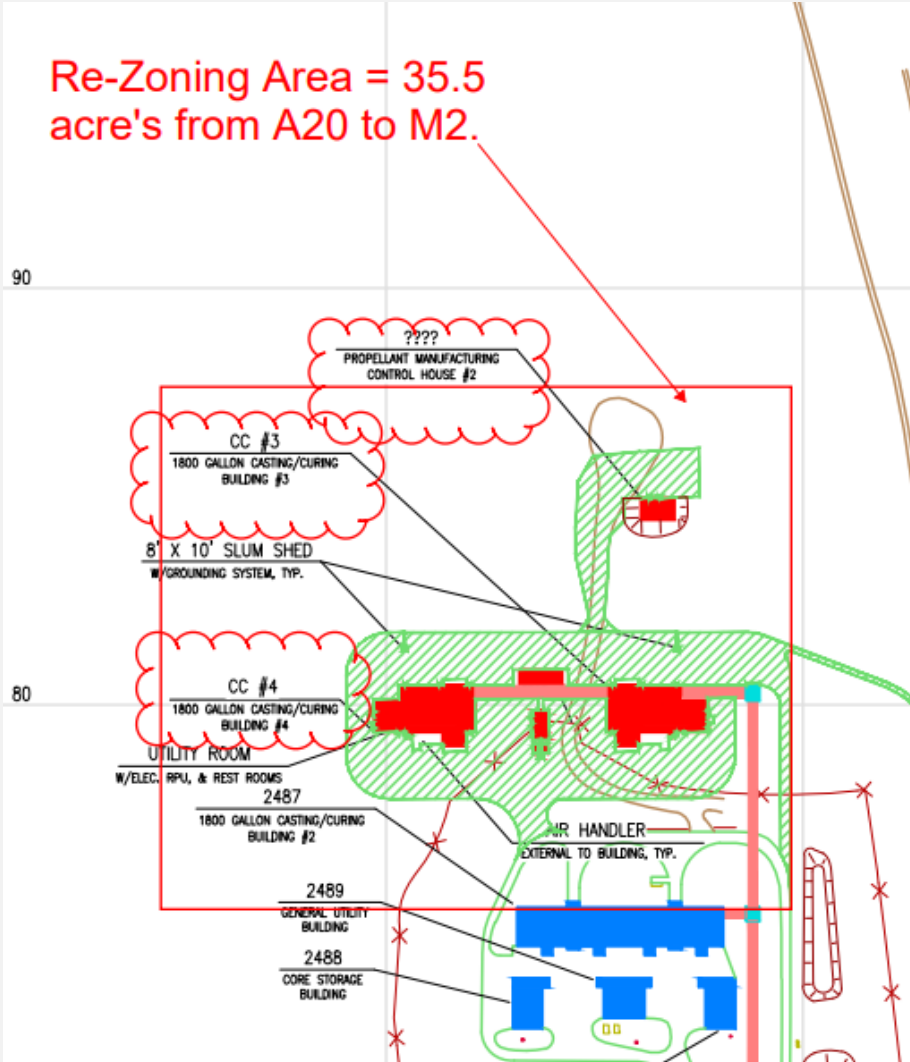
WEST BENCH LOCATION

- Northrop Grumman evaluated locations both in and out of state
- Intent is expanded production of the rocket already built at this location
- Other locations lack what the existing operation has in equipment, buildings and a trained and experience work force that would be difficult and costly to replicate elsewhere
- The location at the north end of the existing line utilizes the existing plant capacity as well as the existing automated manufacturing and ingredient transport systems
- Other locations at the Bacchus facility face greater physical challenges or are unsuited to the quick setting nature of the rocket motor casting process



PROCESS/USE OF BUILDINGS

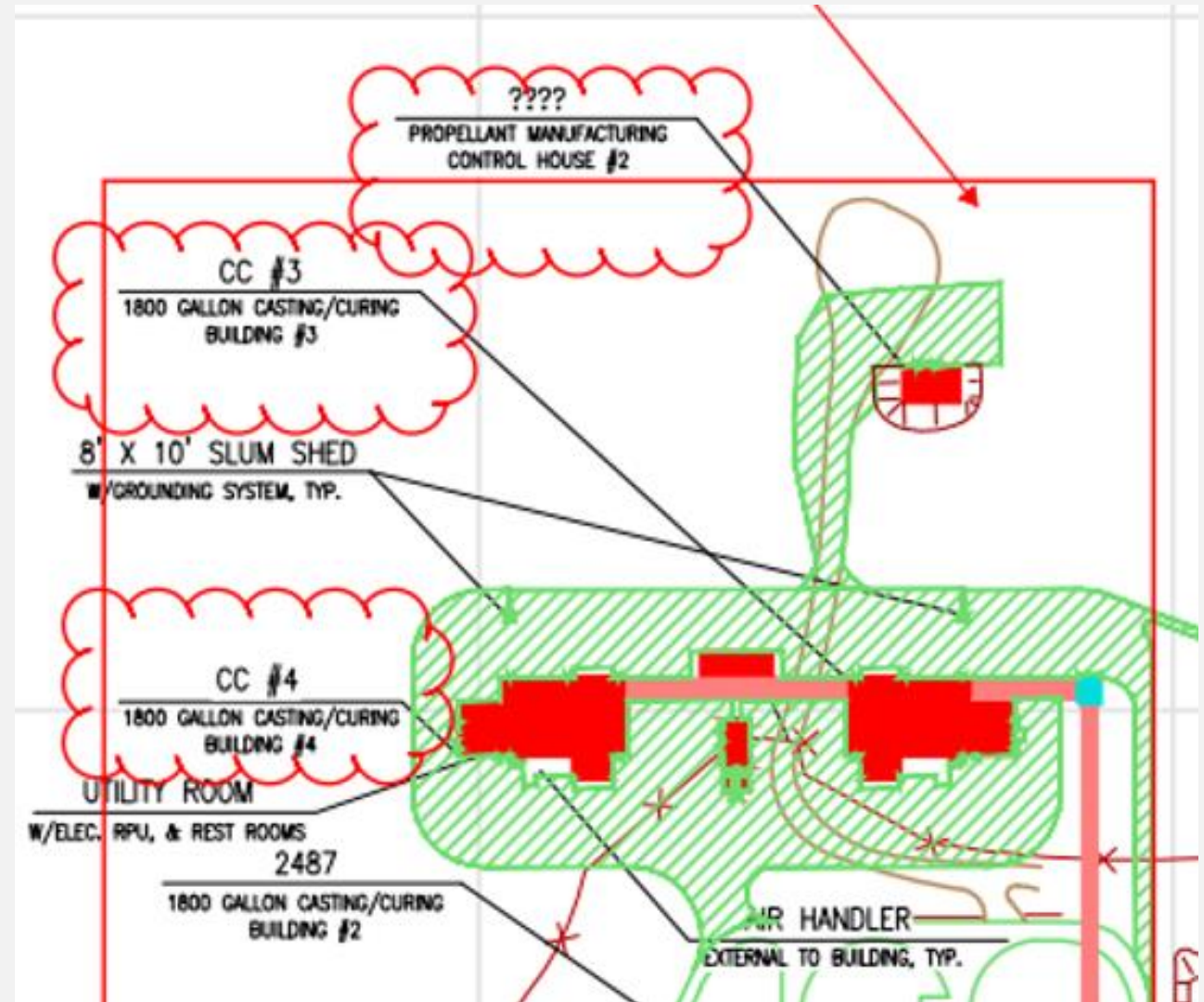
Re-Zoning Area = 35.5
acre's from A20 to M2.



- Buildings within proposed rezone area used for casting liquid fuels into rocket casings
- The cured solid fuel rocket motors are the finished product
- Work done in two casting/curing buildings
- Unfilled rocket motors tipped on end, in an 80' deep pit, for fuel to be cast
- Fuel then cures into a rubber like state
- Motors then transported to the Finishing building, located within the West Valley City portion of the plant

PROCESS/USE OF BUILDINGS

- Employees control work in the casting curing buildings from the Propellant Manufacturing Control House
- Core Storage Building and Boiler House are part of the casting/curing operations



ANALYSIS – GENERAL PLAN

- 2007 Draft West Bench General Plan not adopted
- Salt Lake County nearing adoption of Salt Lake County West General Plan
- Draft Salt Lake County West General Plan has proposed land use, transportation and preservation policies and goals with implications in the project area
- Draft future land use map identifies project area as appropriate for Master Planned Communities with 4-6 units per acre
- These areas are identified for “Limited Development Until Post Mine Closure (2040+)”
- Nearest residentially zoned area is approximately 3/4 of a mile away
- Rio Tinto Kennecott owns land, likely beyond 2040
- Rio Tinto Kennecott granted Northrop Grumman permission to build the existing plant and the proposed expansion
- Future residential use of Oquirrh foothills a long-term possibility, not a near term certainty
- Mining and other industrial uses that characterize this portion of the county remain viable

ANALYSIS – TRANSPORTATION

- Future “Oquirrh Blvd” on the current 2019-2050 Regional Transportation Plan (RTP) adopted by the Wasatch Front Regional Council
- Future road is located to the east at a lower elevation than the existing Northrop Grumman assembly line and the proposed extension of the assembly line
- Proposed Bonneville Shoreline Trail alignment is also located to the east and at a lower elevation than the rezone area
- No transportation issues identified by the draft plan are expected to be affected by the proposed rezone

ANALYSIS – CONSERVATION

- Watershed is an important conservation topic identified in the draft West General Plan
- Buffering of industrial uses from potential recreation uses and the ecological reclamation of current industrial and mining sites are also topics identified in the draft West General Plan
- Buffering and reclamation issues are longer range concerns as the industrial and mining activities are ongoing
- Residential and recreational uses are not currently present near the project area

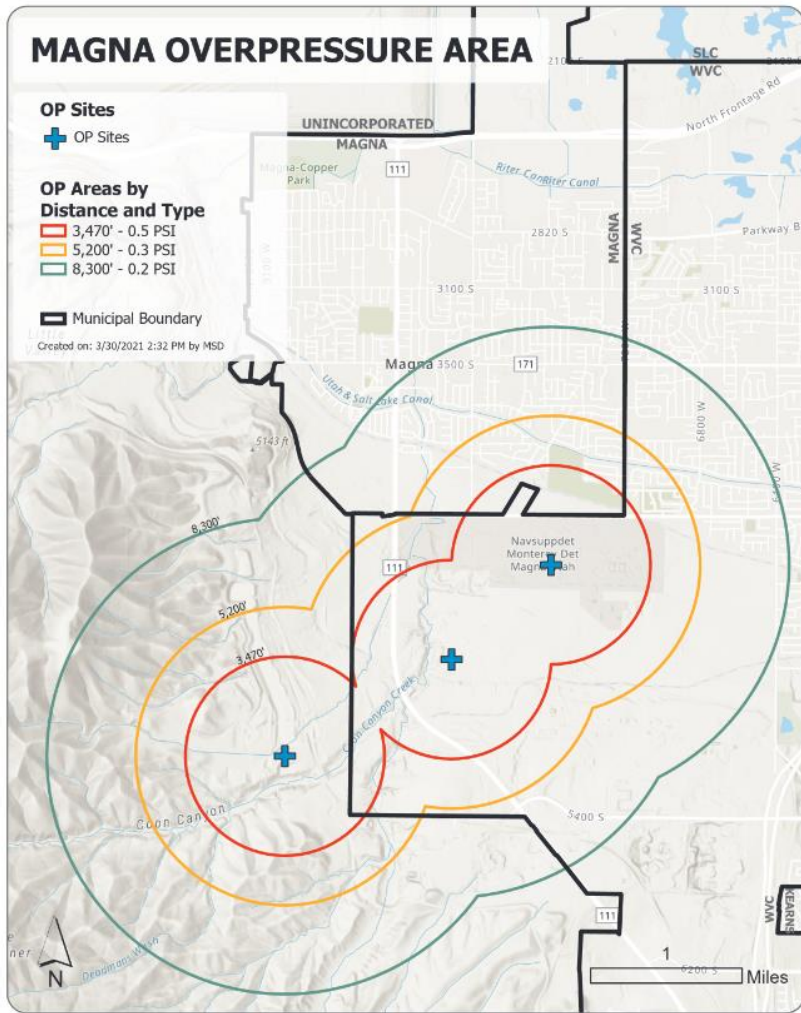
ANALYSIS – ZONING

- Northrop Grumman expansion area currently zoned A-20 (Agriculture Zone)
- Existing plant is zoned M-2 (Manufacturing Zone)
- Rezone to M-2 a necessity for the project to move forward
- Rezones are legislative decisions for the Salt Lake County Council
- Council's approval or denial the key decision for any expansion of the plant that includes the 35 acres proposed for rezone
- Approval clears the way for the applicant to apply for land use permits and other regulatory permits
- Portions of project located within the footprint of current plant and have necessary M-2 zoning necessary
- It is not clear if the project can be viable without a rezone that includes the 35 acres in question
- Rezone can include conditions
- Conditions are generally limited to the uses allowed in the zone and those pertaining to density, square footage, and height

ANALYSIS – LAND USE PERMITS

- If rezone approved:
- Applicant must then apply for a conditional use permit for site plan approval of an industrial project over one acre
- Conditions placed on a conditional use permit not as limited in scope as for a rezone
- For a conditional use, if a legitimate detrimental effect of the proposed land use can be identified, a reasonable condition can be imposed to mitigate that detrimental effect

OVERPRESSURE ZONES



- Overpressure areas established based on a type of material designated as a “mass detonation hazards” used for a certain type of rocket.
- Overpressure areas are based on activities at specific locations within the Bacchus Plant
- These high hazard materials can cause an overpressure shock front and fragment generation.
- On the West Bench, including the rezone area, Northrop Grumman builds (and will build) a different type of rocket motor
- These rocket motors have been excluded from the “high hazard” definition
- They are a significant fire hazard, they are only a minor blast hazard
- These rocket motors use materials that are not a mass detonation hazard associated with overpressure and fragmentation
- Overpressure areas will not change

ANALYSIS – AIR QUALITY AND ENVIRONMENTAL ISSUES

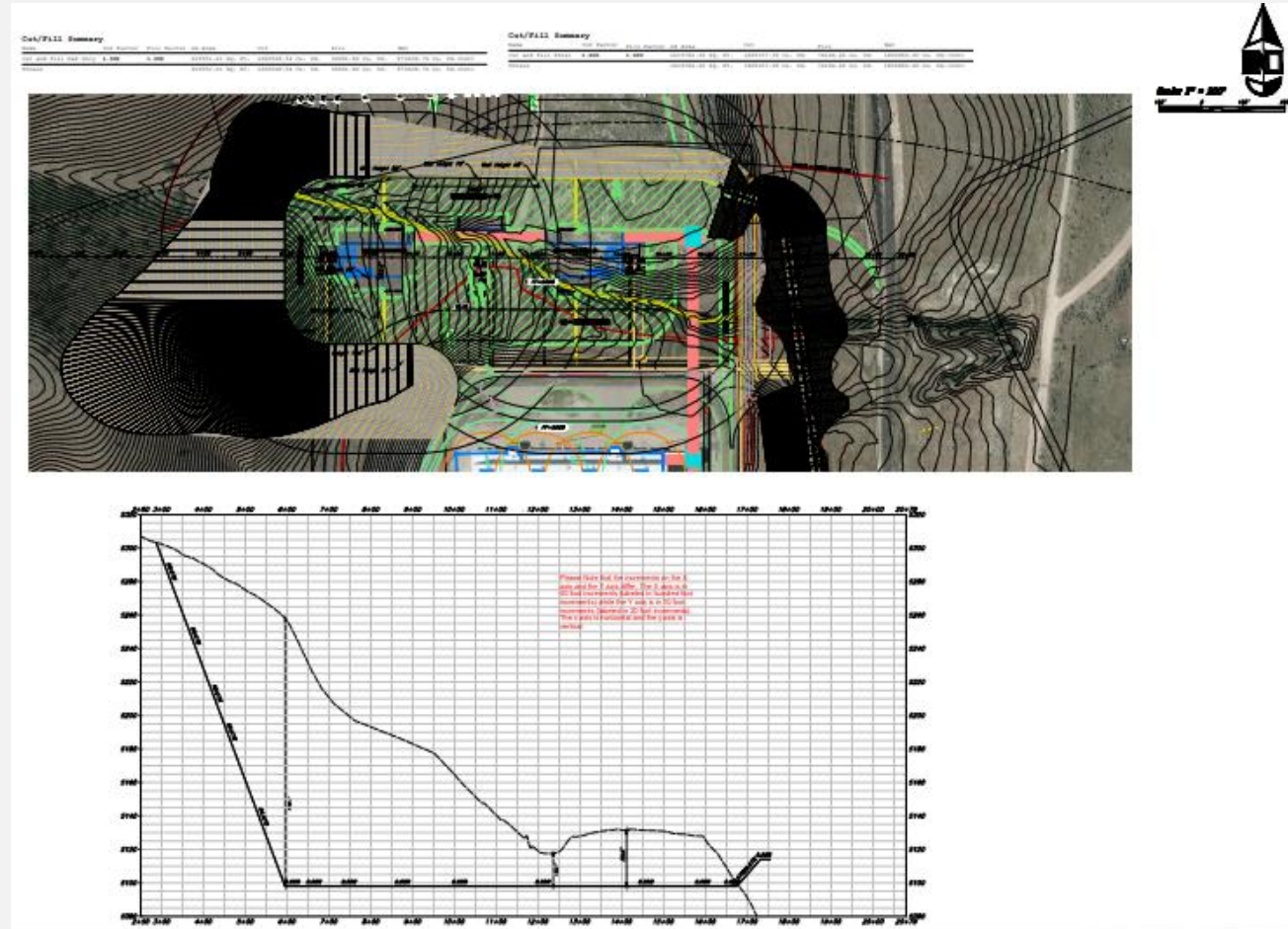
- Potential detrimental effects include air quality and other environmental concerns
- Issues to be mitigated could include short term, construction related concerns and longer-term operation of the plant
- Mass grading of any project, industrial or residential, carries with it concerns about air and water quality due to the movement of soils and removal of vegetative cover
- Blowing winds, flowing water and the movement of machines can displace soils, causing air and water pollution
- Storm Water Pollution Prevention Plans (SWPPP) and Fugitive Dust Control Plans are required to ensure that applicant uses best management practices to control air and water quality during construction
- Penalties for violations of the plans can be imposed
- These plans must be in place for the entirety of the construction portion of a project and in some instances are required for the life of the facility.

ANALYSIS – AIR QUALITY AND ENVIRONMENTAL ISSUES

- The Bacchus Facility has air quality, water quality, waste, and hazardous waste permits through the Utah Department of Environmental Quality (DEQ)
- DEQ monitors and licenses air and water quality as well as waste and hazardous waste
- Existing permits will need to be amended with DEQ in conjunction with this project
- Existing plant has a permit to store hazardous waste at three locations at its current plant
- Those locations all located West Valley City portion of plant
- Environmental Protection Agency and Federal Aviation Administration also regulate the aerospace industry

ANALYSIS –GRADING

- Proposed plant will require nearly two (2) million cubic yards of cut and 75 thousand cubic yards of fill
- Finished grade will have a 33.69-degree slope, the equivalent of an 8/12 roof pitch
- Finished grade steeper than most of the existing hillside
- Re-vegetated required to control erosion.
- Proposed storage area for the excess materiel is to the east of the existing manufacturing line



ANALYSIS – FLOOD CONTROL

- Proposed plant constructed across an ephemeral stream
- Stream will be relocated, channelized or piped
- Newly hardscaped ground and rooftops will create additional runoff
- This runoff will need to be mitigated by on-site detention or by some other permitted means
- Early discussions between Salt Lake County Flood Control, Salt Lake County Engineering, and the Metropolitan Service District Storm Water and Grading Divisions
- Significant challenges exist
- To date, no indication that these potential impacts cannot be mitigated through the permitting process
- Permits such as Storm Water Pollution Prevention (SWPPP), Phase I and II Environmental Studies, Grading, Stream Alteration Permits, and potentially 404 permits from the Army Corps of Engineers may be required
- Civil engineering drawings, including geotechnical studies and slope stability analyses required
- These permits and studies will be part of the land use permit and building permit activities

ANALYSIS – ECONOMIC DEVELOPMENT

- Northrop Grumman will invest \$450 million dollars in expanding the existing manufacturing line
- Northrop Grumman is the only manufacturer of this type of rocket motor and the demand for these motors has increased significantly
- Additional manufacturing capability will allow the company to triple the number of rocket motors they are able to build
- Construction efforts will utilize local firms and most of the \$450 million dollars will be spent within the Salt Lake County and the State of Utah
- When complete, the expanded and upgraded production line will create up to 400 new long-term, high-tech manufacturing jobs

CONCLUSIONS

- Northrop Grumman deliberately chose this site due to existing infrastructure, existing capabilities, and existing workforce
- Technical challenges exist that will need to be overcome
- Challenges include:
 - Significant grading challenges to ensure slope stability and re-vegetation
 - Flood control, runoff, site retention and the mitigation of an existing ephemeral stream
 - As with any large project, air and water quality issues during the construction
- Northrop Grumman evaluated other locations but still chose this site due to the existing infrastructure and manufacturing line west of S. R. 111/Bacchus Highway
- Challenges with any other site evaluated to be greater than the proposed site and bring less benefit than the proposed location
- Impacts associated with proposed site are significant, as are the benefits to creating up to 400 long-term high-tech manufacturing jobs, along with many short-term construction jobs

REVIEW PROCEDURE

- Salt Lake County Council is the land use authority for zoning map amendments
- Planning Commission has held a public hearing, reviewed the request and recommended approval of the rezone to the County Council
- County Council must then hold a public hearing, after which they may
 - Adopt the rezone,
 - Adopt with revisions, or
 - Reject the zoning map amendment recommended by the Planning Commission

STANDARD OF REVIEW

- A rezone can be approved if it is reasonably debatable that the decision could promote the public welfare
- It is not necessary to show that the decision actually promotes the public welfare, or is the best alternative, as long as it is reasonably debatable that the public could benefit from the decision
- Similarly, a rezone can be denied if it is reasonably debatable that the decision could detrimentally impact the public welfare

RECOMMENDATION

- Having received a recommendation of approval from the Planning Commission, the Salt Lake County Council can:
 - Approve the rezone,
 - Approve the rezone with conditions,
 - Deny the rezone, or
 - Table the application if further information is needed
- Any action taken by the Council should address specific reasons that the decision advances and serves the public welfare, or conversely, negatively impact the public welfare
- Planning Staff is not making a specific recommendation for approval or denial of the proposed rezone, but rather is taking a “neutral” stance
- Staff has determined that this rezone application requires a policy decision as to whether the potential “benefits” to the public welfare outweigh the corresponding potential negative impacts and whether any such negative impacts can be reasonably mitigated