

# Planning for the Future

North Polk Community School District

**Enrollment Analysis** 

May 2022



### Expectations



Thank you to North Polk Community School District; Polk, Story, and Boone County; Cities of Alleman, Ankeny, Elkhart, Polk City, Sheldahl, and Slater; Iowa DOT; and Census/ESRI.

Things to Consider...

- <u>Timeline</u> Project timeline is a result of ensuring student data could represent as close as possible to the Official County Data with attributes that would allow RSP to forecast enrollment at a parcel level geography.
- <u>Findings</u> The finding were not focused on supporting or contradicting any past internal or outsourced studies. This analysis is based on data, data, and more data.
- <u>Study</u> This study factored in many different data sets to provide data driven analysis that is the foundation to the RSP Statistical Forecast Model (SFM).
- <u>Change</u> Enrollment change in the community is influenced by, but not limited to, the birth rate, demographics, types of development and/or housing affordability.

#### Facts:

- 1) The study does not provide specific information about which site would be best suited for a new facility or for that matter should the district build any new facility this analysis is one portion of how to make that decision
- 2) This analysis is based on the same grade configuration and educational programming expectations the patrons have for each student
- 3) Projecting enrollment is not a science like life in general some assumptions happen that may lead to greater enrollment while others toward a smaller enrollment

The goal of this study is to help the board, administration, and public understand how to make the best decision for the students at the classroom level.

### **RSP & Associates**

#### **RSP Quick Facts:**

- Founded in 2003
- Professional educational planning firm
- Expertise in multiple disciplines
- Over 20 years of planning experience
- Over 80 years of education experience
- Over 20 years of GIS experience
- Projection accuracy of 97% or greater

#### **RSP Recent Projects:**

Clarksville Montgomery County School System, Tennessee

- Enrollment Analysis
- Boundary Analysis

**Hutchinson Public Schools** 

- Enrollment Analysis
- Facility Master Plan

Kansas City Kansas Public Schools

- Enrollment Analysis
- Boundary Analysis

#### **RSP Leadership:**

Robert Schwarz, AICP, CEFP

- Military, County, City, and School District Planner
- Kansas University Master of Urban Planning (MUP)
- American Institute of Certified Planners (AICP)
- Certified Educational Facility Planner (CEFP)

Company was started with the desire and commitment to assist school districts in long-range planning. RSP has served over **130** clients in:

- Arkansas
- Colorado
- Iowa
- Illinois
- Kansas
- Minnesota
- Missouri

- Nebraska
- North Dakota
- Oklahoma
- South Dakota
- Tennessee
- Wisconsin

### **Discussion Points**

Part 1
Enrollment &
Demographics

- o Things to Consider
- o Maps & Data
- Sophisticated Forecast Model
- o Demographics
- Past Enrollment & Change



- Population, Development, & Enrollment Trends
- Yield Rate
- o Maps & Data



- Past, Current, & Future Enrollment
- Building Projections



- o Moving Forward
- Next Steps & Key
   Consideration



- Demographics
- Intra-transferTables
- Student DensityMaps



### Part One: Past Enrollment and Demographics



### 100,000 Foot Perspective



District enrollment forecasted to increase by 350+ students in five years

- Elementary School enrollment forecasted to increase by 200+ students
- Middle School enrollment forecasted to increase by 90+ students
- High School enrollment forecasted to increase by 60+ students



Capacity challenges expected at every level in the next ten years

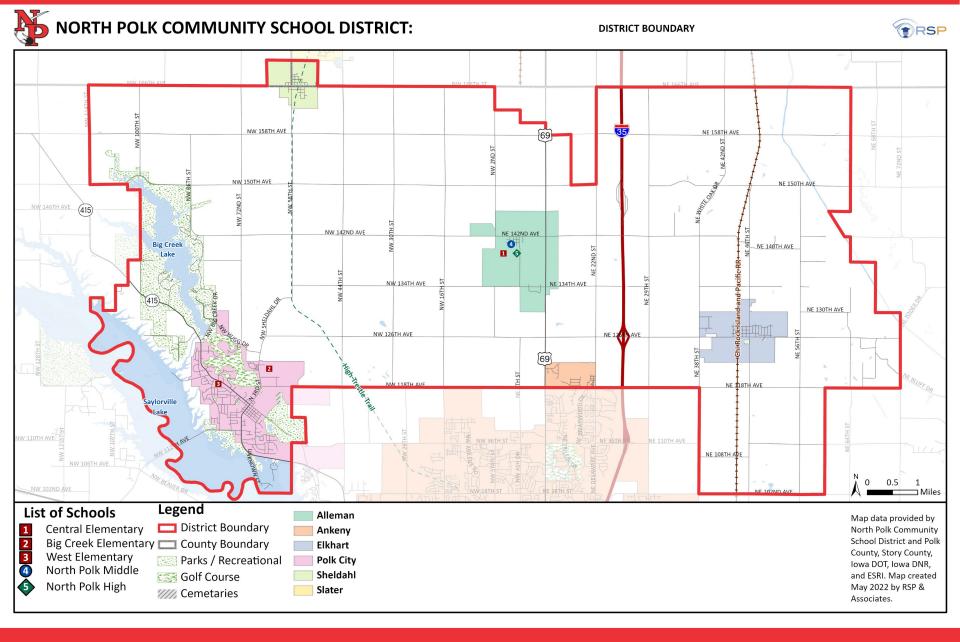
- Elementary School forecasted to face capacity challenges in 2030/31
- Middle School forecasted to face capacity challenges in 2025/26
- High School forecasted to face capacity challenges in 2029/30



The current and potential housing market was analyzed in this study

- In 2021, 185 single-family units and 50 multi-family were built
- o Almost 1,800 potential units were identified in this study for future residential growth
- Utilize the Yield Rate Analysis to help prepare for potential student growth

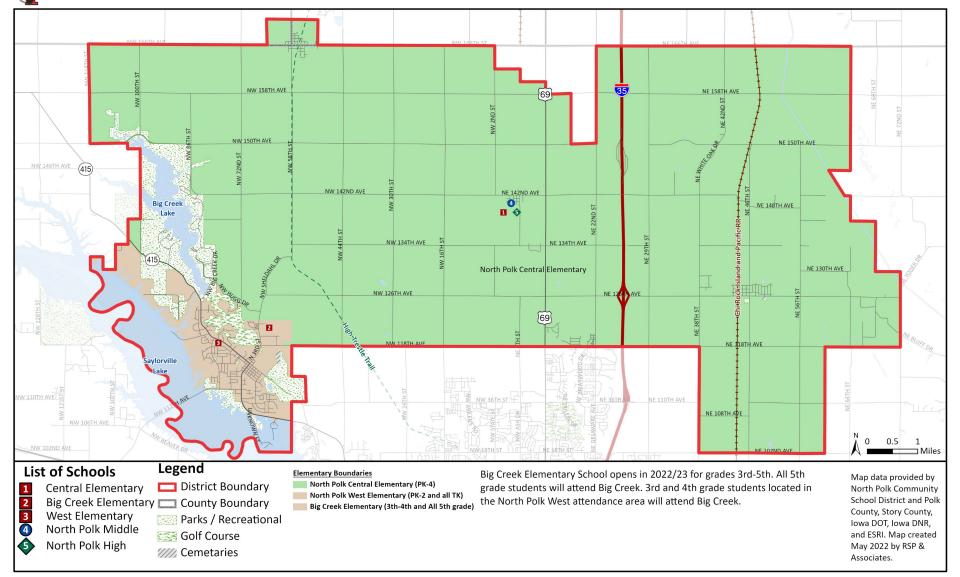
### **District Boundary**



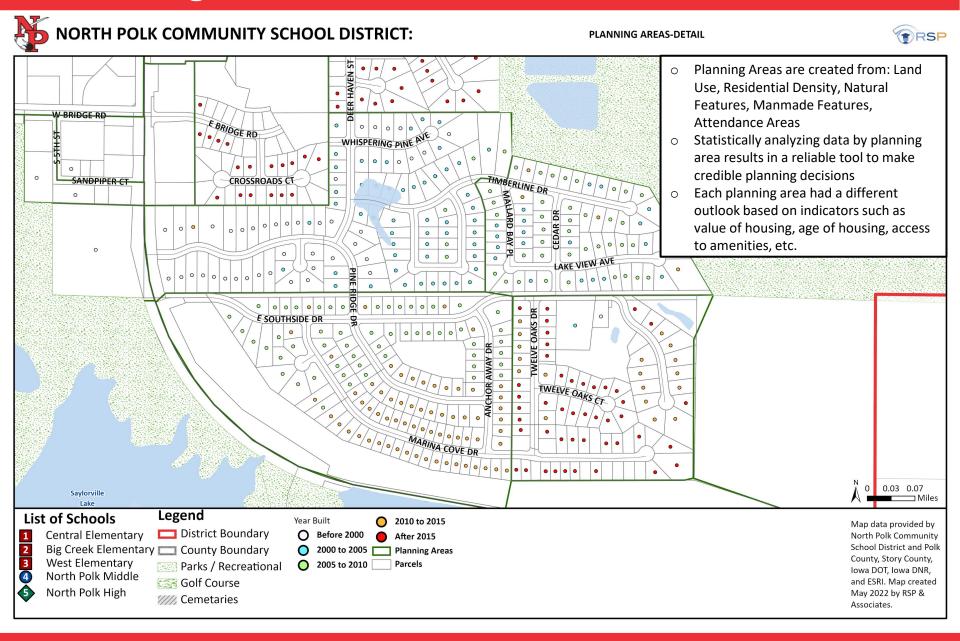
### **Elementary Boundaries**

# NORTH POLK COMMUNITY SCHOOL DISTRICT:





### **Planning Areas**



## Sophisticated Forecast Model Methodology

Built-Out 
$$S_{c,t,x} = S_{c-1,t-1,x} * GC$$

The number of students, either an actual count or a projected count

= A subscript denoting an attendance ares in the School District

= Grade level

= Time (years)

= Growth component either modeling enrollment increase or decrease based on historical information, expressed as a real number

Developing 
$$S_{c,t,x} = S_{c-1,t-1,x} + (BP_{t,x} * R_{c,x})$$

Where: 
$$BP_{t,x} = \left( \frac{(CP_x)(BT_x)(A_x)}{\sum_x (CP_y)(BT_y)(A_y)} \right) * CT$$

Let:

The number of students, either an actual count or a projected count

= A subscript denoting an attendance area in School District

= Grade level

= Building permit forecast as given by the Building Permit Allocation Model (BPAM) model

= Student Enrollment ratio of cohort c in planning area x

= Capacity of a planning area as expressed by available housing units

= Building history trend of planning area

= An index which models the likelihood of development

Building permit control total forecast

This is the **central focus** of everything RSP does.

The model is based on what is happening in a school district. The best data is statistically analyzed to provide an accurate enrollment forecast. The District will be able to use RSP's report and maps to better understand demographic trends, school utilization, and the timing of construction projects.

#### The SFM is...

- a social science... not an exact science; it identifies behavior trends to determine the propensity of them to be recreated
- valuable in how our team created and analyzes the geography at a planning area level for any commonality which while help produce an accurate forecast

Some variables examined for each planning area (but not limited to) are...

- natural cohort (district data)
- planning area subdivision lifecycle (a RSP variable)
- the value of homes (county assessor data)
- type of residential units like single-family, multifamily, townhome, mobile home, etc. (county assessor data)
- year units were built
- estimated female population (census data)
- estimated 0-4 population (census data)
- existing land use (county and city data)
- future land use (county and city data) 0
- capital improvement plan (county and city data)
- future development (county and city data)
- in-migration of students (district data) & outmigration of students (district data)



#### Birth Rate Information

#### Polk County, Iowa Live Births and North Polk Kindergarten 5-Years Later

Calendar Year	# Live Births	Birth Change	% Birth Change	School Year	# Kdg	%Kdg of Live Births
2005	6,567			2010/11	121	1.8%
2006	6,911	344	5.2%	2011/12	110	1.6%
2007	6,915	4	0.1%	2012/13	131	1.9%
2008	6,723	-192	-2.8%	2013/14	137	2.0%
2009	6,690	-33	-0.5%	2014/15	129	1.9%
2010	6,521	-169	-2.5%	2015/16	102	1.6%
2011	6,498	-23	-0.4%	2016/17	119	1.8%
2012	6,729	231	3.6%	2017/18	130	1.9%
2013	6,767	38	0.6%	2018/19	116	1.7%
2014	6,946	179	2.6%	2019/20	149	2.1%
2015	7,022	76	1.1%	2020/21	128	1.8%
2016	6,910	-112	-1.6%	2021/22	149	2.2%
2017	6,925	15	0.2%	2022/23	108	149
2018	6,641	-284	-4.1%	2023/24	104	143
2019	6,545	-96	-1.4%	2024/25	102	141
2020	6,274	-271	-4.1%	2025/26	98	135
3-Year Average	6,486.7	-217.00				•
3-Year Weighted Average	6,425.5	-214.83				Low Range

Source: Iowa Department of Public Health and North Polk Community School District



High Range

**Main Takeaway:** The decline of live births in the county can potentially result in smaller kindergarten classes.

#### **Live Birth Observations**

- Tracks the number of live births and the corresponding number of kindergarten students in North Polk Community School District five years later
- Boone and Story County contribute a very small subset to total kindergarten counts
- The last column shows the percent of live births from Polk County that enroll in North Polk CSD – other school districts in the county include Ankeny, Bondurant-Farrar, Des Moines, Johnston, Saydel, Urbandale, etc.
- The number of live births have been decreasing. This is consistent with national and state trends
- 3-year average of 217 less live births per year
- North Polk Community School District has a range of 1.6% to 2.2% of county live births enrolled in kindergarten five years later
- Kindergarten enrollment has varied between 102-149 students per year
- The kindergarten classes moving forward are forecasted to be between 98 - 108 students on the low end and 135 - 149 students on the high end

### Past Enrollment by Grade

<b>Enrollment By</b>	/ Grade
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Year	PK	TK	К	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total (PK-12)	Change	% Change
2000/01	0	0	84	65	67	83	51	77	65	66	67	68	86	65	65	909		, a change
2001/02	0	0	89	71	70	70	89	49	79	68	72	72	72	88	61	950	41	4.5%
2002/03	0	0	83	82	75	69	69	89	47	75	68	69	71	75	83	955	5	0.5%
2003/04	0	0	87	67	79	83	74	74	89	54	78	70	72	67	73	967	12	1.3%
2004/05	0	0	65	88	67	82	82	76	75	89	55	81	72	74	70	976	9	0.9%
2005/06	0	0	85	70	83	82	91	86	80	79	90	56	83	74	70	1,029	53	5.4%
2006/07	0	0	107	100	77	90	89	98	93	82	87	96	59	85	68	1,131	102	9.9%
2007/08	0	0	82	101	95	80	87	85	102	95	84	86	98	60	82	1,137	6	0.5%
2008/09	0	0	117	85	99	98	85	90	87	104	95	85	88	103	59	1,195	58	5.1%
2009/10	0	0	100	120	88	101	96	84	92	88	107	93	89	89	106	1,253	58	4.9%
2010/11	68	0	127	90	118	82	100	93	88	93	87	101	95	90	84	1,316	63	5.0%
2011/12	95	0	112	109	98	118	87	103	100	90	92	85	99	94	90	1,372	56	4.3%
2012/13	112	0	132	120	117	106	125	93	112	100	92	97	91	103	93	1,493	121	8.8%
2013/14	103	0	141	126	121	117	99	124	91	116	105	91	87	83	101	1,505	12	0.8%
2014/15	94	0	131	131	132	121	122	99	128	98	121	106	98	89	88	1,558	53	3.5%
2015/16	111	17	104	120	132	142	122	126	105	130	99	122	107	95	89	1,621	63	4.0%
2016/17	109	16	123	108	125	136	145	127	129	110	133	103	121	105	95	1,685	64	3.9%
2017/18	87	15	131	132	118	133	140	154	136	135	114	139	104	121	111	1,770	85	5.0%
2018/19	120	32	120	142	138	124	138	144	153	141	135	116	133	108	117	1,861	91	5.1%
2019/20	108	24	149	120	143	140	135	139	140	154	143	141	128	135	108	1,907	46	2.5%
2020/21	90	33	133	161	123	153	148	141	144	145	160	147	142	127	142	1,989	82	4.3%
2021/22	113	34	154	149	173	135	164	148	144	147	149	167	154	150	140	2,121	132	6.6%

Source: Iowa Department of Education (2000/01 to 2002/03) & North Polk Community Schools (2003/04 to 2021/22)

#### **Observations:**

- Largest K-12 class in 2021/22 2<sup>nd</sup> grade with 173 students
- o Smallest K-12 class in 2021/22 3<sup>rd</sup> grade with 135 students
- o Graduating senior class is smaller than the incoming kindergarten class which will increase total enrollment
- Largest historical increase was from last year to this year 132 more students
- o Largest total enrollment since 2000/01 is 2021/22 the first school year to be above 2,000 total students
- o 2021/22 has the largest grades since 2000/01 in: PK, TK, K, 2<sup>nd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup>

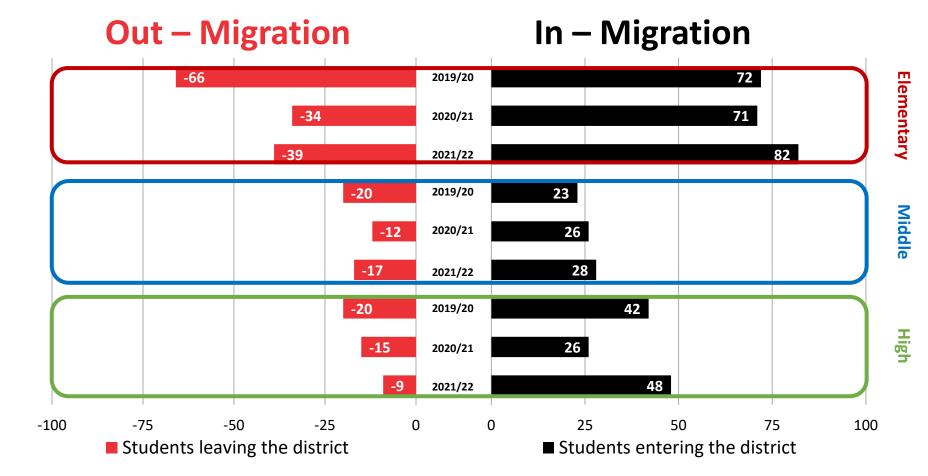
### **Cohort Student Change**

Enrollmen	t Grade Cha	inge																
					К	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	PK-12	Change
From	То	PK	TK	К	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total	Percent
2000/01	2001/02	0	0	5	-13	5	3	6	-2	2	3	6	5	4	2	-4	41	4.5%
2001/02	2002/03	0	0	-6	-7	4	-1	-1	0	-2	-4	0	-3	-1	3	-5	5	0.5%
2002/03	2003/04	0	0	4	-16	-3	8	5	5	0	7	3	2	3	-4	-2	12	1.3%
2003/04	2004/05	0	0	-22	1	0	3	-1	2	1	0	1	3	2	2	3	9	0.9%
2004/05	2005/06	0	0	20	5	-5	15	9	4	4	4	1	1	2	2	-4	53	5.4%
2005/06	2006/07	0	0	22	15	7	7	7	7	7	2	8	6	3	2	-6	102	9.9%
2006/07	2007/08	0	0	-25	-6	-5	3	-3	-4	4	2	2	-1	2	1	-3	6	0.5%
2007/08	2008/09	0	0	35	3	-2	3	5	3	2	2	0	1	2	5	-1	58	5.1%
2008/09	2009/10	0	0	-17	3	3	2	-2	-1	2	1	3	-2	4	1	3	58	4.9%
2009/10	2010/11	68	0	27	-10	-2	-6	-1	-3	4	1	-1	-6	2	1	-5	63	5.0%
2010/11	2011/12	27	0	-15	-18	8	0	5	3	7	2	-1	-2	-2	-1	0	56	4.3%
2011/12	2012/13	17	0	20	8	8	8	7	6	9	0	2	5	6	4	-1	121	8.8%
2012/13	2013/14	-9	0	9	-6	1	0	-7	-1	-2	4	5	-1	-10	-8	-2	12	0.8%
2013/14	2014/15	-9	0	-10	-10	6	0	5	0	4	7	5	1	7	2	5	53	3.5%
2014/15	2015/16	17	17	-27	-11	1	10	1	4	6	2	1	1	1	-3	0	63	4.0%
2015/16	2016/17	-2	-1	19	4	5	4	3	5	3	5	3	4	-1	-2	0	64	3.9%
2016/17	2017/18	-22	-1	8	9	10	8	4	9	9	6	4	6	1	0	6	85	5.0%
2017/18	2018/19	33	17	-11	11	6	6	5	4	-1	5	0	2	-6	4	-4	91	5.1%
2018/19	2019/20	-12	-8	29	0	1	2	11	1	-4	1	2	6	12	2	0	46	2.5%
2019/20	2020/21	-18	9	-16	12	3	10	8	6	5	5	6	4	1	-1	7	82	4.3%
2020/21	2021/22	23	1	21	16	12	12	11	0	3	3	4	7	7	8	13	132	6.6%
3-Yr Avg		-2.3	0.7	11.3	9.3	5.3	8.0	10.0	2.3	1.3	3.0	4.0	5.7	6.7	3.0	6.7	86.7	4.5%
3-Yr Wavg		3.5	2.2	10	12	7.2	9.7	10	2.2	2.5	3.3	4.3	5.8	5.8	4	8.8	101	5.2%

Source: Iowa Department of Education (2000/01 to 2002/03) & North Polk Community Schools (2003/04 to 2021/22)

#### **Observations:**

- O All grade level cohorts grow year to year; largest 3-year average K-12 class cohort increase 3<sup>rd</sup> to 4<sup>th</sup> grade (+10)
- Overall percent change from previous year of 6.6% increase of 132 students
- Instructional Modality will have to be monitored to determine if the students who are not attending the district still reside in the district and if or how many return to receive services in the future years



#### **Definition**

Out-Migration: Shows number of students in grade K to 11<sup>th</sup> that were attending the District in 2020/21, but are not attending the District in 2021/22.

**In-Migration:** Shows number of students in grade 1<sup>st</sup> to 12<sup>th</sup> that are attending the District in 2021/22, but were not attending the District in 2020/21.

#### **Observations**

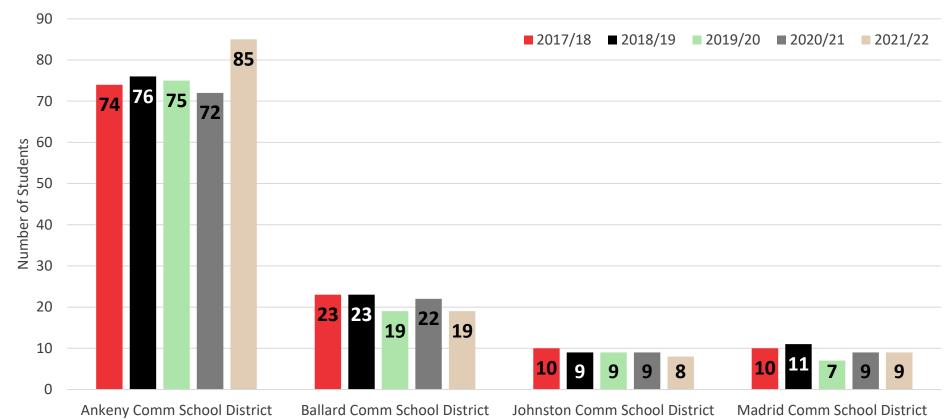
- 2019/20 lost 106 students and gained 137 students; NET: +31
- 2020/21 lost 61 students and gained 123 students; NET: +62
- 2021/22 lost 65 students and gained 158 students; NET: +93

#### **Main Takeaway:**

The past three years (pre-pandemic, post-pandemic) have all had positive migration trends of students.

### Out of District Student Analysis





#### **Observations**

Only school districts that contribute at least 10 students in a given year are shown in the graphic

#### **Main Takeaway**

- o In 2017/18 there was 155 OOD students; in 2021/22 there were 162 students residing outside of the district
- Ankeny Community School District contributes the largest percentage of out of district students

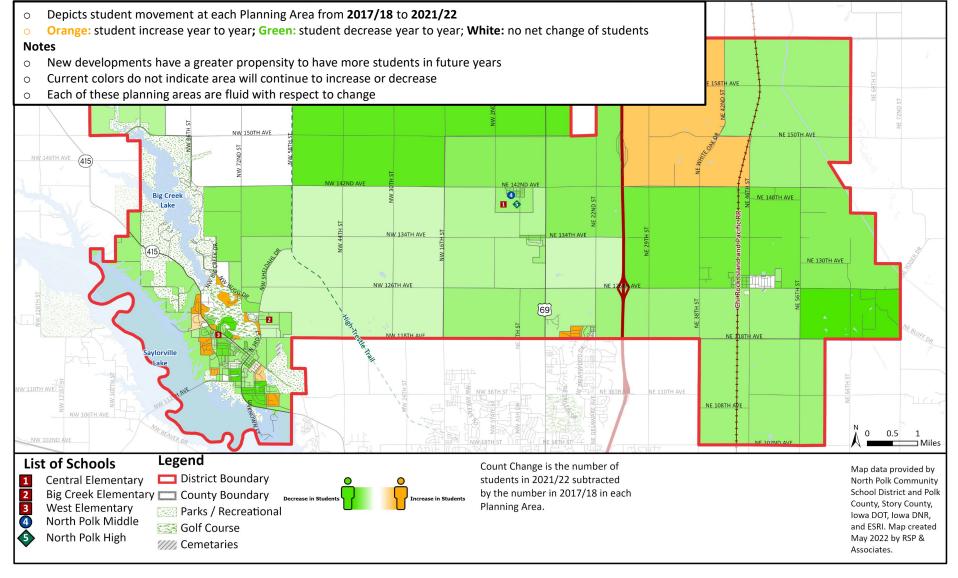
### Student Count Change Map



#### **NORTH POLK COMMUNITY SCHOOL DISTRICT:**

STUDENT COUNT CHANGE FROM 2017/18 TO 2021/22 IN GRADES K-12



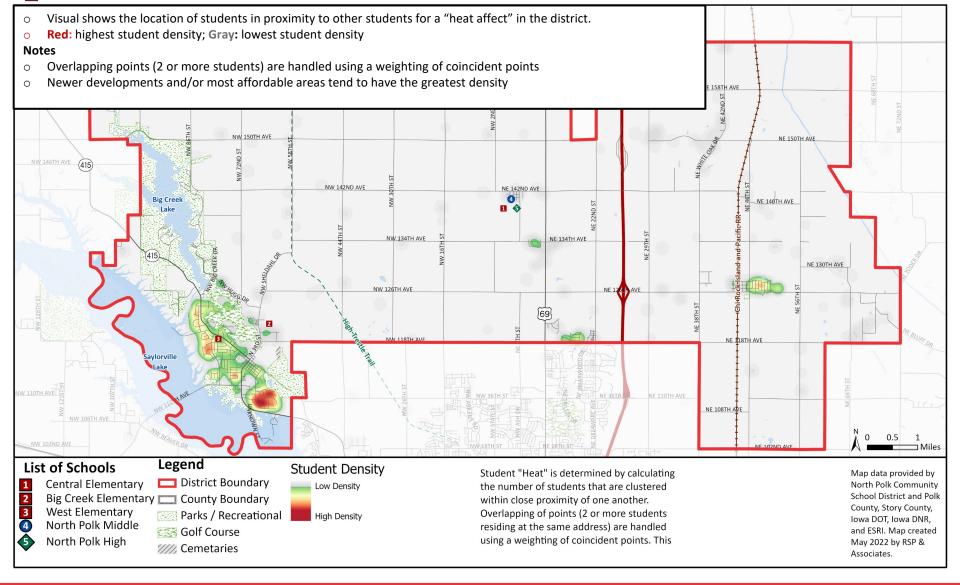


### Heat Map

#### NORTH POLK COMMUNITY SCHOOL DISTRICT:

STUDENT "HEAT" DENSITY IN 2021/22





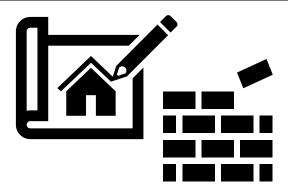
### **Enrollment Observations and Conclusions**

#### The following are some general enrollment observations:

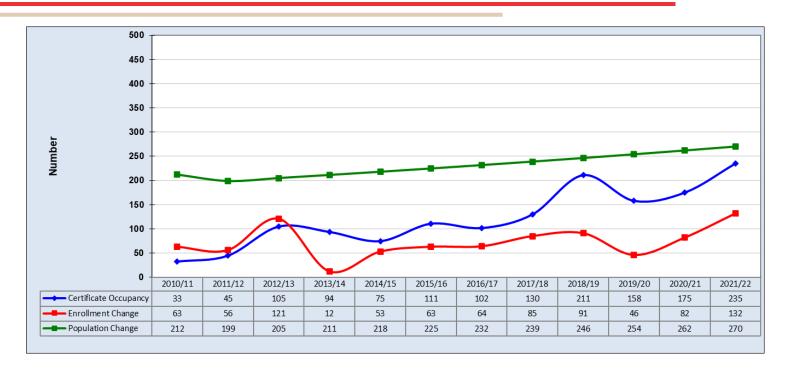
- RSP & Associates monitors over 120 planning areas for demographic, development, and enrollment data sets
- District enrollment increased by 132 students from last year
- Every year the district has increased total enrollment
- Graduating senior classes are smaller than incoming kindergarten classes
- Grades tend to increase as they move throughout the system
- District has seen positive migration trend for the past three years
  - In 2021/22, 158 new students transferred into the district for a district-wide net gain of 93 students
- Out of district students per year have been relatively stable
- o In 2021/22, 162 students that reside outside of district boundary enrolled in North Polk
  - The highest school district contributor to out of district enrollment is Ankeny Community School District
  - 52% or 85 of the 162 OOD students came from Ankeny the highest number of students in the last five years
- Greatest student density is in the southwest corner of the district



### Part Two: Development and Growth Trends



### Population, Development, & Enrollment



Benchmark data to determine if there is a correlation between:

- Population change
- Building activity
- School enrollment

#### **Observations**

- o Population Change: census indicates an increasing population by more than 200 people per year
- Certificate Occupancy: building activity has been growing and becoming occupied year to year
  - 2021/22 saw 235 certificates of occupancy
- District Enrollment Change: student enrollment has increased every year as building activity provided more opportunities for new families to live in the district

### Student Yield Rate

#### **Table Legend**



Greater than 3 from district average Less than 3 from district average



Single-Family Yield Rate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Avg
North Polk Central Elementary	20	18	21	22	21	21	22	21	21	21	21	20	19	19	19	18	16	16	15	20
North Polk West Elementary	26	26	26	30	27	30	29	30	30	33	34	34	34	33	35	33	34	34	35	31
District (K-5):	23	22	24	26	24	25	26	26	26	27	28	28	27	27	28	27	26	26	26	26

Source: RSP and North Polk School District

#### **Single-Family Yield Rate Observations**

- o Table shows the number of students per 100 single-family (SF) units by year and elementary boundary
- o District sees on average 26 K-5 students per 100 single-family households
- West Elementary has the largest 2021 SF yield rate with 35 students per 100 single-family households
- Adding new housing inventory can increase the yield rate
- There were 1,047 single-family homes built from 2012 to 2021

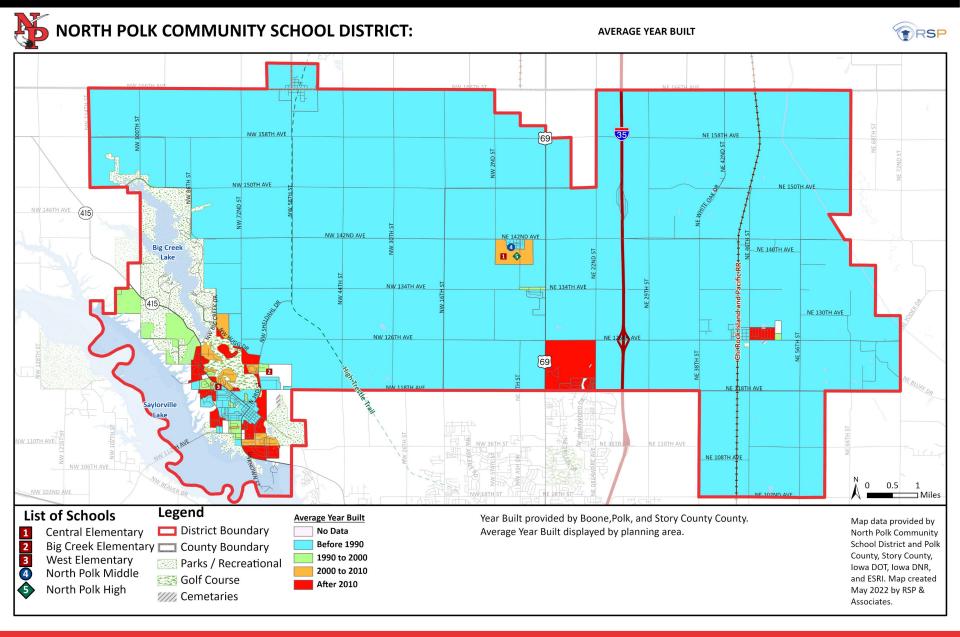
Multi-Family Yield Rate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Avg
North Polk Central Elementary	23	19	15	15	15	22	19	25	27	25	30	28	18	17	16	6	4	4	4	17
North Polk West Elementary	9	9	9	13	12	13	15	14	14	16	16	15	10	11	11	9	9	10	9	12
District (K-5):	13	12	11	14	13	15	16	17	17	18	19	17	11	12	12	8	7	8	7	13

Source: RSP and North Polk School District

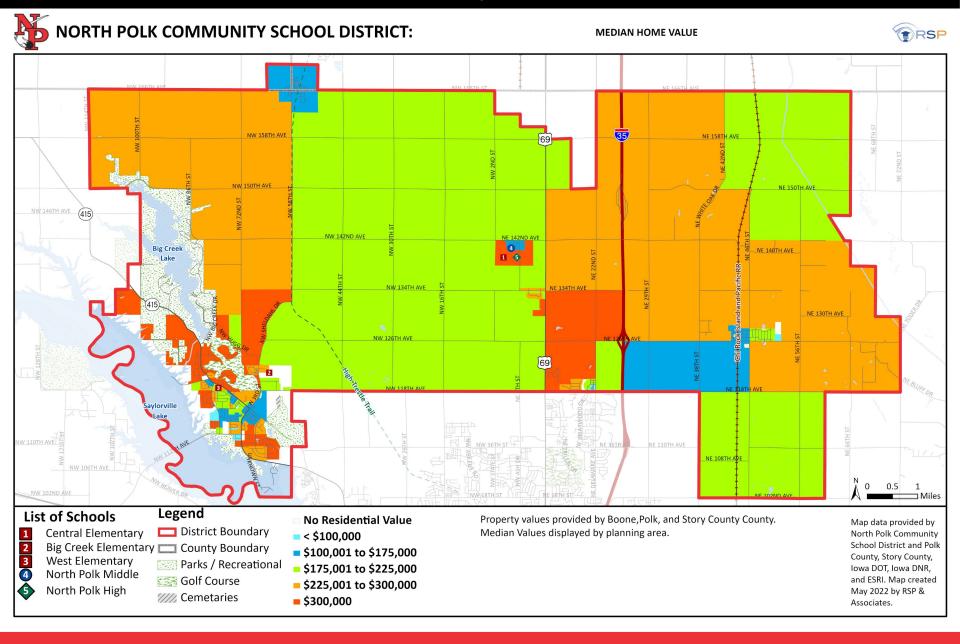
#### **Multi-Family Yield Rate Observations**

- o Table shows the number of students per 100 multi-family (MF) units by year and elementary boundary
- District sees on average 13 students per 100 multi-family households
- West Elementary has the largest 2021 MF yield rate with 9 students per 100 multi-family households
- o Both elementary school yield rates have been decreasing since 2013
- o Adding new housing inventory can increase the yield rate
- There was 349 multi-family homes built from 2012 to 2021

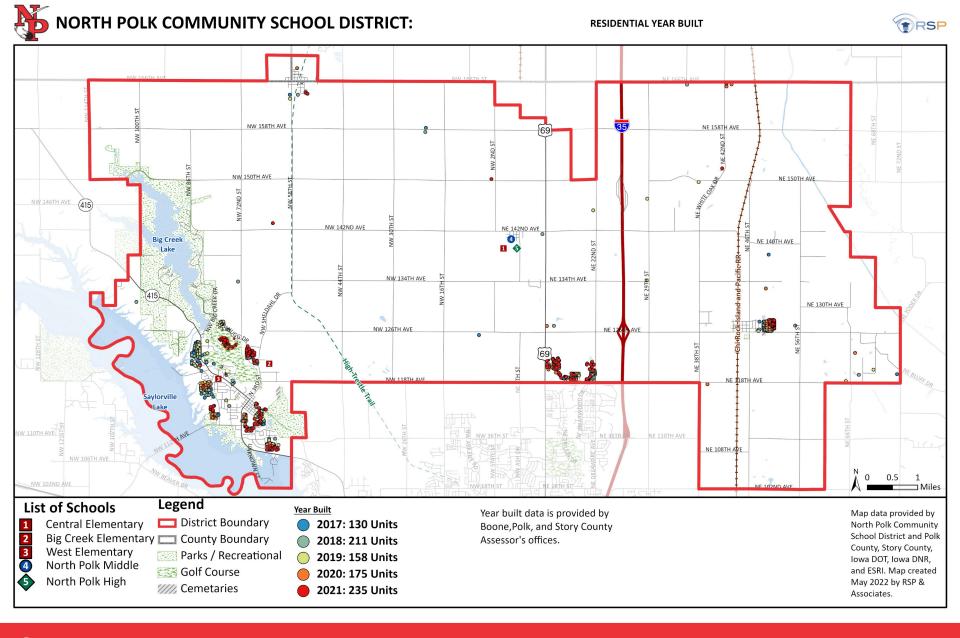
### Average Year Built Map



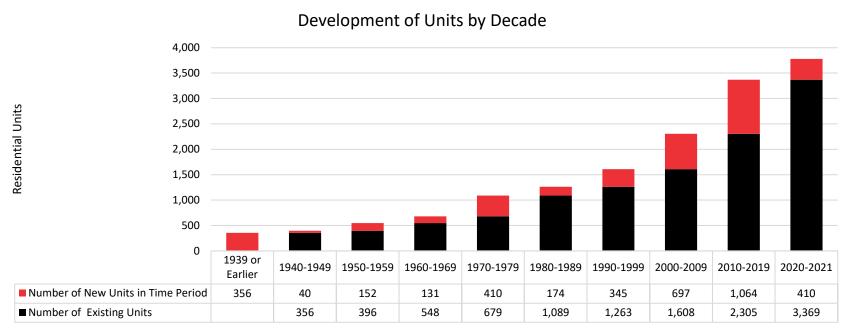
### Median Home Value Map



### Recent Year Built Map



### Development Activity Over Time



Source: Polk County and ESRI

#### **Observations:**

- Table has been created to illustrate the number of units by year built
- The average number of units built per year from 2010 to 2019 (106.4 per year) is higher than from 2000 to 2009 (69.7 per year)
- The decade with the most units built was 2010 to 2019 28% of total units
- The average year for all units built was 1989 and the median year built is 2004

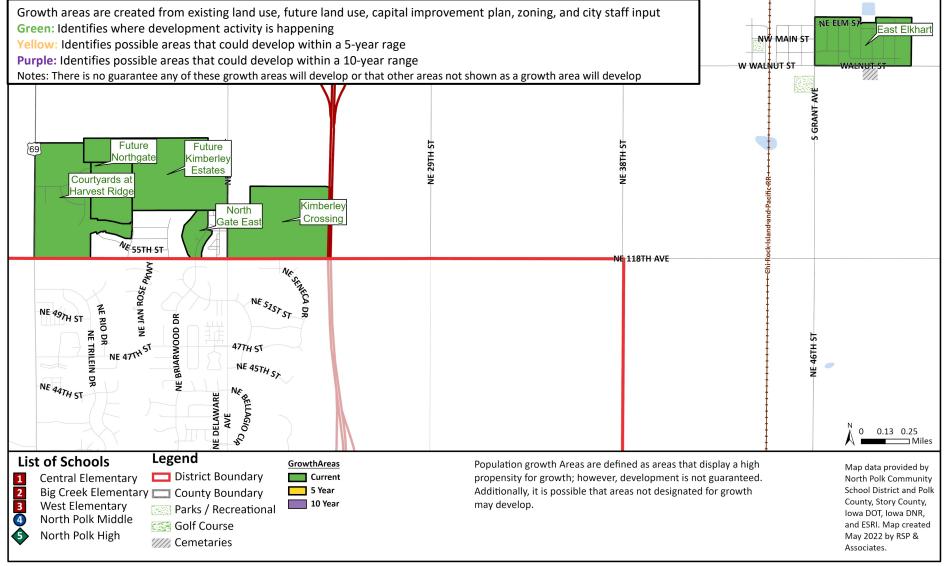
### East Growth Area Map



#### **NORTH POLK COMMUNITY SCHOOL DISTRICT:**

**GROWTH AREAS** 

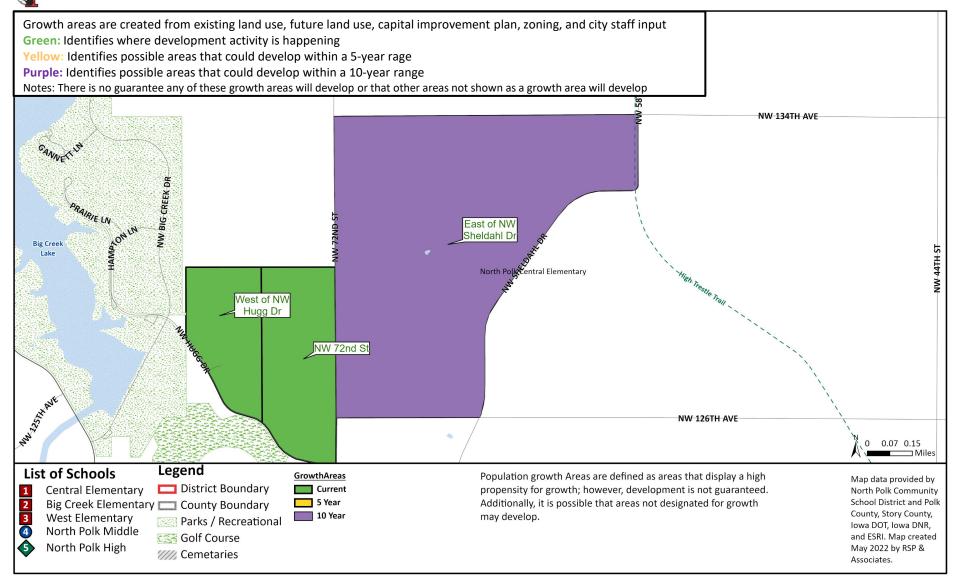




### North Polk City Growth Map

# **NORTH POLK COMMUNITY SCHOOL DISTRICT:**





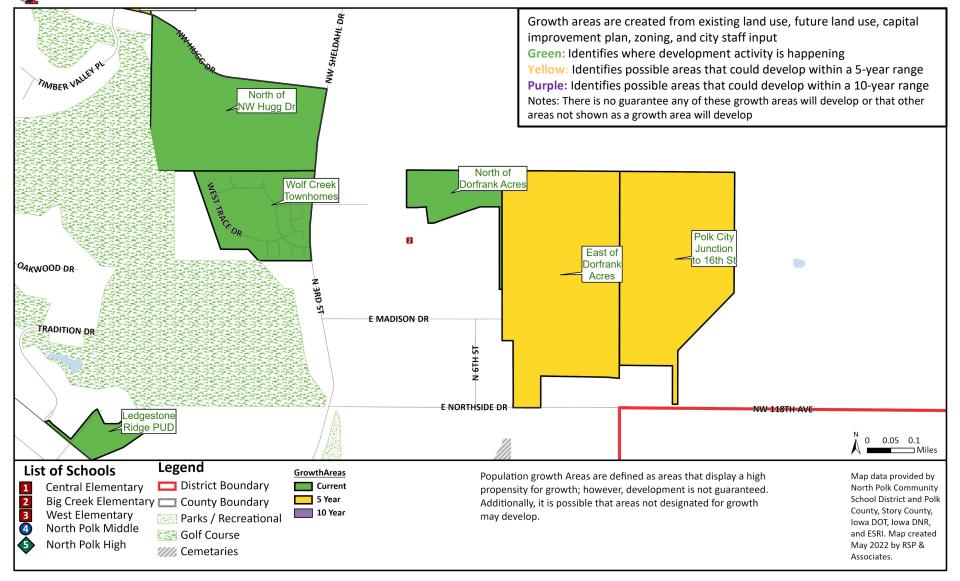
**GROWTH AREAS** 

### East Polk City Growth Map

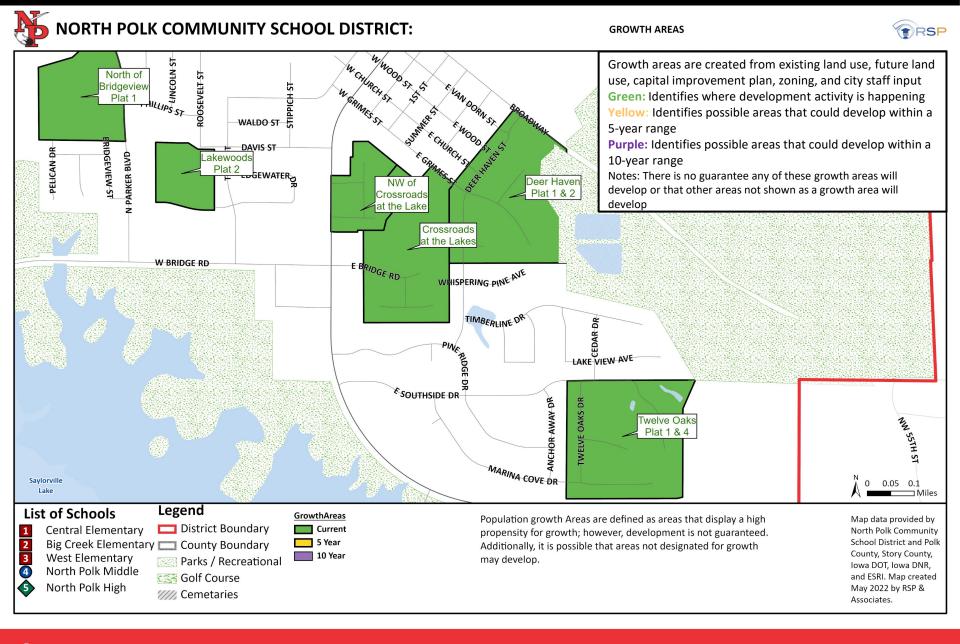
# NORTH POLK COMMUNITY SCHOOL DISTRICT:

**GROWTH AREAS** 





### South Polk City Growth Map



### Development Table

RSP Plan Area Name	Туре	Growth Area	Existing Units	Potential Units	Acres	Elementary
Kimberley Crossing	AG	Current	1	320	119.03	North Polk Central
NW 72nd St	AG	Current	1	210	98.21	North Polk Central
North Gate East	MF	Current	20	38	34.10	North Polk Central
West of NW Hugg Dr	Rural	Current	9	88	66.73	North Polk Central
Courtyards at Harvest Ridge	SF	Current	55	149	119.17	North Polk Central
East Elkhart	SF	Current	258	21	79.77	North Polk Central
Future Kimberley Estates	SF	Current	9	102	135.16	North Polk Central
Future Northgate	SF	Current	0	100	42.33	North Polk Central
North of NW Hugg Dr	SF	Current	25	63	51.58	North Polk Central
Ledgestone Ridge PUD	Duplex	Current	0	32	6.97	North Polk West
NW of Crossroads at the Lake	MF	Current	38	20	12.25	North Polk West
Crossroads at the Lakes	SF	Current	18	32	33.54	North Polk West
Deer Haven Plat 1 & 2	SF	Current	55	17	41.96	North Polk West
Lakewoods Plat 2	SF	Current	0	50	10.46	North Polk West
North of Bridgeview Plat 1	SF	Current	7	34	21.99	North Polk West
North of Dorfrank Acres	SF	Current	0	21	12.19	North Polk West
Twelve Oaks Plat 1 & 4	SF	Current	65	11	40.40	North Polk West
Wolf Creek Townhomes	TH	Current	92	26	25.71	North Polk West
Polk City Junction to 16th St	SF	5 Year	0	173	57.87	North Polk Central
East of Dorfrank Acres	SF	5 Year	0	32	71.46	North Polk West
East of NW Sheldahl Dr	AG	10 Year	6	250	444.82	North Polk Central
Current Total	·		653	1,334		
5 Year Total			0	205		
10 Year Total			6	250		
All Total			659	1,789		

#### **Definition**

- Table has been created to illustrate the type and amount of potential development
- Type is the potential residential units that will be built
- The speed in which any developments are built are influenced by who owns the property, access to infrastructure, and economic indicators

Source: Cities of Ankeny, Elkhart, and Polk City

#### **Main Takeaway**

- 1,334 current potential units, 205 5-year potential units, and 250 10-year potential units
- 1,789 total potential units

### **Development Observations and Conclusions**

#### The following are some general housing market and development potential observations:

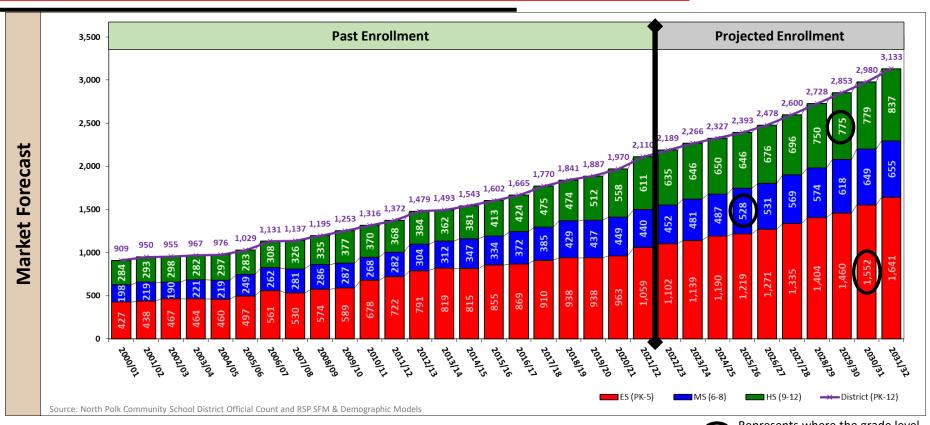
- Over 1,700 units could be built within the next 10+ years
- Single-family has a higher yield rate than multi-family
  - Tracking the types of development is important to understand the yield rate of students for every part of the community there are varying yield rates with all developments
- Building activity was at its highest from 2000 to 2019
  - Residential growth appears to continue and expand opportunities for new families in the area
  - Monitor local factors that may affect development timing and economic outlook to gauge how the new decade of residential growth will play out
- o In 2021, 235 units were built (185 single-family units and 50 multi-family were built)
- Growth areas are mostly on the east and south side of Polk City
  - Many areas are in current development stages and will be finishing their construction soon
  - Majority of current and potential growth is single-family in type
  - Utilize the yield rate analysis to continually observe the potential student impact of developing areas
- As of February 2022, construction costs have increased over 100% from August 2020 and supply chain challenges impact the potential of new development and where new developments will occur in the district



## Part Three: Enrollment Projections



### Past, Current, & Future Enrollment



Represents where the grade level capacity begins to be inadequate

Projections reflect anticipated new building activity and demographic changes over next 5-years:

- District increases +368 (+16.3%) (Reside)
- Elementary School increases +212 (+18.6%) (Reside) (additional capacity need by 2030/31)
- Middle School increases +91 (+19.4%) (Reside) (additional capacity need by 2025/26)
- High School increases +65 (+10.3%) (Reside) (additional capacity need by 2029/30)

### Projection Notes & Clarifications

#### Past Enrollment is shown three different ways:

- 1. Reside (based on where a student resides in relation to the attendance area, includes Open Enrollment)
- 2. Attend (based on what school the student is attending, includes Open Enrollment)
- 3. Reside/Attend (subset of Reside to know how many of the Reside attend the school based on the attendance area they are assigned to)

#### Projections are shown one way:

Reside (based on where a student resides in relation to the attendance area, includes Open Enrollment)

#### Capacity

- Provided by district administration
- Dark orange shading is where the capacity exceeds the capacity of that school
- Should be annually examined to ensure appropriate education space is available

#### Other Items

- Enrollment Grade Configuration in Student Forecast Model (PK-5, 6-8, 9-12)
- Big Creek ES opens in 2022/23 school year (3<sup>rd</sup> and 4<sup>th</sup> from North Polk West attendance area, 5<sup>th</sup> all students)
- Open enrollment trends are assumed to follow district policy and will continue like those trends during the projection time frame

o Beautiful Beginnings PK not included in the past and future enrollment

### Past, Current, & Future Enrollment

North Polk Community School District Enrollment Projections By School (Based on Student Reside)

	North Folk Community School D				•	•		· nesiae,	- · ··	- 1	n ::	
	School	School	Student		Past School			_		s Based on		_
		Capacity	Location	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
	North Polk Central ES		Reside/Attend	326	329	357	380					
	PK to 4th	436	Reside	337	361	382	411	285	317	359	400	442
	Prior to 2022/23 All 5th grade attend here		Attend	355	367	391	420					
	North Polk West ES		Reside/Attend	440	539	547	608					
	PK to 2nd and all TK	620	Reside	469	577	581	648	424	432	417	419	420
	Prior to 2022/23 PK to 4th		Attend	451	571	572	639					
	Big Creek ES		Reside/Attend	0	0	0	0					
	3rd to 4th and all 5th grade	468	Reside	0	0	0	0	393	390	414	400	409
st	Opens in 2022/23		Attend	0	0	0	0					
Foreca	North Polk Middle School		Reside/Attend	429	437	445	437					
ē	6th to 8th	500	Reside	429	437	449	440	452	481	487	528	531
<u></u>			Attend	429	437	445	437					
щ	North Polk High School		Reside/Attend	474	512	558	611					
et	9th to 12th	750	Reside	474	512	558	611	635	646	650	646	676
논			Attend	474	512	562	614					
Market	ELEMENTARY TOTAL		Reside/Attend	766	868	904	988					
2	PK to 5th	1,524	Reside	806	938	963	1,059	1,102	1,139	1,190	1,219	1,271
			Attend	806	938	963	1,059					
	MIDDLE TOTAL		Reside/Attend	429	437	445	437					
	6th to 8th	500	Reside	429	437	449	440	452	481	487	528	531
			Attend	429	437	445	437					
	HIGH TOTAL		Reside/Attend	474	512	558	611					
	9th to 12th	750	Reside	474	512	558	611	635	646	650	646	676
			Attend	474	512	562	614					
	DISTRICT TOTALS		Reside/Attend	1,669	1,817	1,907	2,036					
	K to 12th	2,774	Reside	1,709	1,887	1,970	2,110	2,189	2,266	2,327	2,393	2,478
			Attend	1,709	1,887	1,970	2,110					

Source: RSP & Associates, LLC - May 2022

Over School Capacity

### Long Term Enrollment Projections

	Grade	Capacity												Scho	ool Year											
			2000/01	2005/06	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32
	PK		0	0	68	95	98	91	79	92	89	87	100	88	71	102	95	93	95	99	104	106	104	108	112	109
	TK		0	0	0	0	0	0	0	17	16	15	32	24	33	34	34	36	31	38	39	38	40	38	38	36
	K		84	85	127	112	132	141	131	104	123	131	120	149	133	154	163	174	172	181	193	197	216	231	253	261
st	1st		65	70	90	109	120	126	131	120	108	132	142	120	161	149	162	171	181	179	187	206	207	230	246	258
В	2nd		67	83	118	98	117	121	132	132	125	118	138	143	123	173	156	169	177	186	183	194	216	209	238	255
ည	3rd		83	82	82	118	106	117	121	142	136	133	124	140	153	135	181	163	175	184	193	194	200	229	212	253
r.	4th		51	91	100	87	125	99	122	122	145	140	138	135	148	164	142	187	168	180	189	207	208	203	246	216
0	5th		77	86	93	103	93	124	99	126	127	154	144	139	141	148	169	146	191	172	183	193	213	212	207	253
щ	6th		65	80	88	100	112	91	128	105	129	136	153	140	144	144	153	173	150	194	176	185	200	220	214	209
ب	7th		66	79	93	90	100	116	98	130	110	135	141	154	145	147	148	156	177	154	198	180	189	204	225	217
. e	8th		67	90	87	92	92	105	121	99	133	114	135	143	160	149	151	152	160	180	157	204	185	194	210	229
Ť	9th		68	56	101	85	97	91	106	122	103	139	116	141	147	167	155	157	158	165	185	163	206	192	196	214
В	10th		86	83	95	99	91	87	98	107	121	104	133	128	142	154	169	157	159	159	166	195	165	206	202	198
5	11th	1	65	74	90	94	103	83	89	95	105	121	108	135	127	150	156	171	158	160	161	169	198	169	203	205
	12th		65	70	84	90	93	101	88	89	95	111	117	108	142	140	155	161	175	162	164	169	181	208	178	220
	PK-5	1,524	427	497	678	722	791	819	815	855	869	910	938	938	963	1,059	1,102	1,139	1,190	1,219	1,271	1,335	1,404	1,460	1,552	1,641
	6-8	500	198	249	268	282	304	312	347	334	372	385	429	437	449	440	452	481	487	528	531	569	574	618	649	655
	9-12	750	284	283	370	368	384	362	381	413	424	475	474	512	558	611	635	646	650	646	676	696	750	775	779	837
	District	2,774	909	1,029	1,316	1,372	1,479	1,493	1,543	1,602	1,665	1,770	1,841	1,887	1,970	2,110	2,189	2,266	2,327	2,393	2,478	2,600	2,728	2,853	2,980	3,133
	Enrollment C	Change		53	63	56	107	14	50	59	63	105	71	46	83	140	79	77	61	66	85	122	128	125	127	153

Sources:

2000/01 to 2021/22 North Polk Community School District

- 2022/23 to 2026/27 RSP & Associates SFM Projections from the 2021/22 Enrollment 5-Year Projections
- 2027/28 to 2031/32 RSP & Associates estimates based on past enrollment change factors

#### **Long Term Implications**

- Future kindergarten classes will be greater than 250 students (Transition Kdg is shown separately)
- Additional capacity will be needed at all levels (Elementary School 2030/31, Middle School 2025/26, and High School 2029/30)
- o This forecast should be used to help determine new facilities and potential grade configurations
- o The long-term projections factor in reasonable new residential activity happening with a good portion either in Ankeny or Polk City
- o A stable economy influencing growth is factored into the forecast
- o The enrollment projections should be examined annually to make the best planning decisions

### Projection Observations & Conclusions

#### **Enrollment at all levels is expected to increase:**

District-wide enrollment to increase by 368 students in five years totaling 2,478

10-year projections: 3,133 PK-12 students

 Elementary School enrollment to increase by 212 students in five years to total 1,271

10-year projections: 1,641 PK-5 students

Middle School enrollment to increase by 91 students in five years to total 531

10-year projection: 655 6-8 students

4. High School enrollment to increase by over 65 students to total 676

10-year projections: 837 9-12 students

#### **Driving forces of enrollment increase:**

- 2021/22 Student population Indicators:
  - Largest classes in history
  - Larger kindergarten classes than senior classes
- 2. Development Activity

Indicators:

- Increasing yield rates
- 2020 to 2022 building trends
- Potential new developments
- 3. Migration Trends *Indicators:* 
  - Positive student migration
  - Cohort growth year to year
  - Increasing number of out of district students

#### 2022/23 Facility Plan:

Big Creek Elementary Online

Serves 3<sup>rd</sup> to 4<sup>th</sup> grade residing in West Elementary Boundary

Serves all of 5<sup>th</sup> grade in the district



### Part Four: Next Steps



### Conclusion & Key Considerations

#### **Continue monitoring:**

- 1. Development trends; will additional areas have building activity over the next five years
- 2. Infrastructure, type of residential units, and when units come online will influence how quickly enrollment could change
- 3. Size of incoming kindergarten classes (larger) versus size of outgoing senior classes (smaller)
- 4. Number of live birth reported year to year (has been decreasing)
- 5. Kindergarten roundup (data to determine how close the potential students match up to the projection)

#### **Next Steps**

- RSP Enrollment forecasting is based on the best-known information at the time of the study
- Annually review enrollment projections, demographics, and development trends
- District administration and the Board of Education further study the enrollment, demographic, and development information presented
- Utilize the enrollment model to assist with planning for staffing needs at each facility for the following school year which will address how quickly areas are "Regreening" and "Emerging"
- Determine how to address capacity issues before they negatively impact the student experience in the classroom
  - Elementary School decision point by 2030/31
  - Middle School decision point by 2025/26
  - High School decision point by 2029/30

The goal of this study is to help the board, administration, and public understand how to make the best decision for the students at the classroom level.

# Appendix





**Note:** Presentation slide heading color in the appendix matches the section in which the information corresponds

### Demographics Summary



Percent Change of Annual Rate

2000-2010: 3.41%

2010-2021: 3.13%

2021-2026: 2.42%



Percent Change of Annual Rate of Housing Inventory

2000-2010: 3.46%

2010-2021: 3.34%

2021-2026: 2.44%



Percent Change of Income per Capita

2021: \$40,410

2026: \$44,533

2021-2026: 1.96%



Unemployment Rate

1.7% as of July 2021

41

#### Demographics

	North Polk Community School District	Adel-Desoto-Minburn School District	Polk City	Polk County	State of Iowa
Unemployment Rate	1.7%	3.5%	1.0%	5.3%	4.3%
Average Household Size	2.74	2.48	2.72	2.47	2.40
Median Age	37.6	41.1	36.5	36.7	39.4
Total Population	8,977	9,392	5,061	499,461	3,215,590
Median Household Income	\$98,212	\$77,882	\$108,140	\$65,769	\$60,413
Total Housing Units	3,425	4,029	1,938	214,268	1,440,082
Owner Occupied Housing	2,822	2,612	1,608	130,514	919,978
Renter Occupied Housing	446	1,112	243	68,079	377,852
Vacancy Rate	4.6%	7.5%	4.5%	7.3%	9.9%

	North Polk Community School District	Adel-Desoto-Minburn School District	Polk City	Polk County	State of Iowa
White	95.6%	93.0%	95.7%	75.4%	84.0%
Black	0.6%	1.1%	0.9%	7.2%	4.1%
American Indian/Alaskan	0.1%	0.4%	0.1%	0.2%	0.3%
Asian	0.7%	0.3%	0.8%	5.6%	2.8%
Pacific Islander	0.0%	0.3%	0.0%	0.1%	0.2%
Other Race	0.0%	0.0%	0.0%	0.2%	0.1%
Two or More Races	1.4%	1.4%	1.3%	2.4%	1.9%
Hispanic	1.6%	3.5%	1.2%	8.9%	6.6%

Source: U.S. Census, ESRI BAO

#### Notes:

Vacancy Rate is lowest in the North Polk Community School District except for Polk City when compared to the other geographies The Unemployment Rate is the lower than the State of Iowa (estimates from July 2021 from the US Census)

Median Age is 4.5% lower in North Polk Community School District when compared to the State of Iowa

 $Average\ Household\ Size\ is\ highest\ in\ North\ Polk\ Community\ School\ District\ when\ compared\ to\ the\ other\ geographies$ 

### **Employment Information**

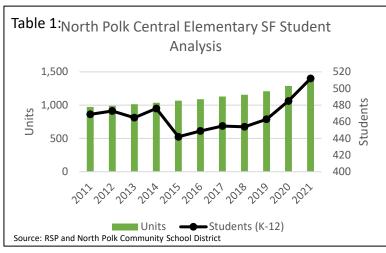
Employment	North Polk Community School District	Adel-Desoto-Minburn School District	Polk City	Polk County	State of lowa
2021 Agriculture/Mining (SIC01-14) Employees	2.8%	4.0%	2.9%	0.8%	1.4%
2021 Construction (SIC15-17) Employees	12.1%	3.7%	9.3%	3.7%	4.0%
2021 Manufacturing (SIC20-39) Employees	1.6%	11.0%	1.5%	6.8%	10.9%
2021 Transportation (SIC40-47) Employees	3.3%	3.3%	2.9%	2.7%	3.1%
2021 Communication (SIC48) Employees	1.5%	0.7%	0.0%	0.8%	0.8%
2021 Utility (SIC49) Employees	0.0%	0.7%	0.0%	0.5%	0.6%
2021 Wholesale Trade (SIC50-51) Employees	3.2%	2.8%	0.0%	4.9%	5.3%
2021 Home Improvement (SIC52) Employees	0.1%	2.6%	0.0%	1.4%	1.6%
2021 General Merchandise (SIC53) Employees	0.8%	0.5%	0.6%	1.6%	1.8%
2021 Food Stores (SIC54) Employees	4.0%	3.4%	11.2%	3.1%	3.6%
2021 Auto Dealer/Gas Station (SIC55) Employees	0.9%	2.3%	1.2%	1.9%	2.2%
2021 Apparel/Accessory (SIC56) Employees	0.3%	0.1%	0.0%	0.4%	0.5%
2021 Furniture/Home Furnishings (SIC57) Employees	0.1%	0.7%	0.0%	0.6%	0.7%
2021 Eating & Drinking (SIC58) Employees	4.2%	2.6%	5.2%	5.3%	6.0%
2021 Miscellaneous Retail (SIC59) Employees	1.0%	1.4%	0.9%	3.1%	2.7%
2021 Banks (SIC60-61) Employees	2.1%	1.4%	4.4%	1.6%	1.8%
2021 Securities Broker (SIC62) Employees	0.2%	0.3%	0.3%	4.4%	1.4%
2021 Insurance (SIC63-64) Employees	0.3%	2.9%	0.6%	4.6%	2.2%
2021 Real Estate/Holding (SIC65-67) Employees	1.9%	1.3%	2.9%	4.9%	2.2%
2021 Hotel/Lodging (SIC70) Employees	0.3%	0.3%	0.4%	1.0%	1.1%
2021 Auto Services (SIC75) Employees	2.6%	0.8%	0.9%	1.5%	1.1%
2021 Movie/Amusement (SIC78-79) Employees	3.5%	0.8%	1.0%	2.4%	2.6%
2021 Health Services (SIC80) Employees	0.9%	7.8%	2.9%	13.0%	12.3%
2021 Legal Services (SIC81) Employees	0.1%	1.6%	0.0%	1.0%	0.6%
2021 Education/Library (SIC82) Employees	14.3%	15.1%	8.6%	5.1%	8.5%
2021 Other Service (SIC72-89SEL) Employees	20.2%	12.9%	24.2%	15.0%	14.8%
2021 Government (SIC91-97) Employees	16.8%	14.5%	17.3%	7.5%	5.6%
2021 Unclassified Establishments (SIC99) Employees	1.0%	0.5%	0.9%	0.4%	0.4%

Source; U.S. Census and Esri BAO

Highest percentage of employees are in Other Service (20.2%)

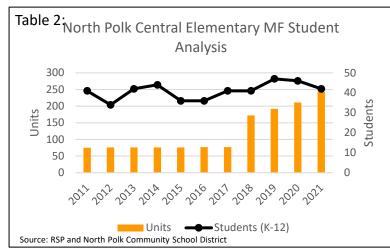
When compared to all neighboring geographies, North Polk Community School District has the highest percentage of employees working in Construction and lowest percentage of employees working in Health Services

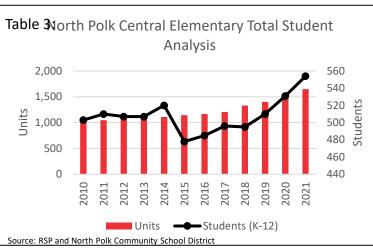
### Central Elementary Student Analysis





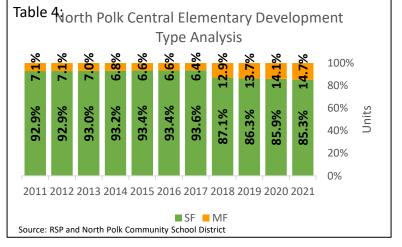










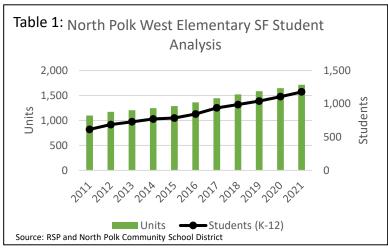


- Table 1: The number of Single-Family (SF) units available by year and the number of students attending
- Table 2: The number of Multi-Family (MF) units available by year and the number of students attending
- Table 3: The total number of units and students by year
- Table 4: The percentage of units by development type (Green is SF and Orange is MF)

#### Main Takeaway:

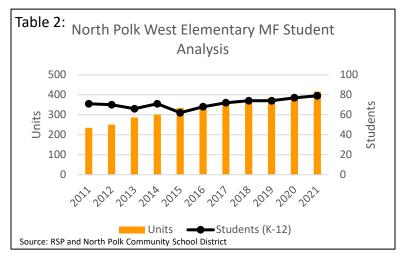
- Students who live in single-family housing has increased by 0.6%
- Multi-family Units have increased by 224%
- Single family Units have increased by 45.1%

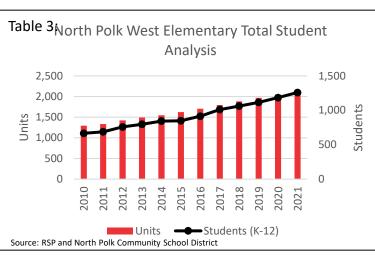
### West Elementary Student Analysis



Overall, students increased by 89.2%



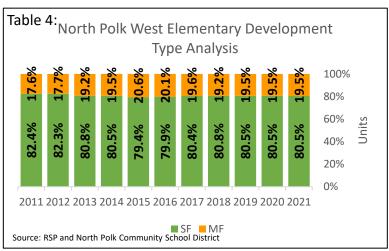




Overall, Development increased by 64.6%





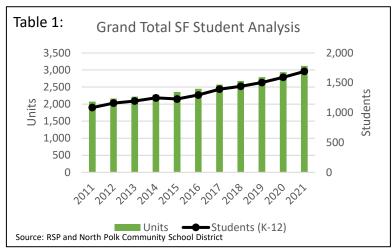


- Table 1: The number of Single-Family (SF) units available by year and the number of students attending
- Table 2: The number of Multi-Family (MF) units available by year and the number of students attending
- Table 3: The total number of units and students by year
- Table 4: The percentage of units by development type (Green is SF and Orange is MF)

#### Main Takeaway:

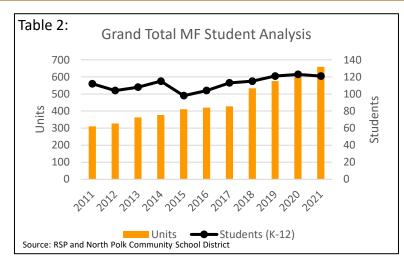
- Students who live in single-family housing has increased by 3.3%
- Multi-family Units have increased by 78.5%
- Single family Units have increased by 61.5%

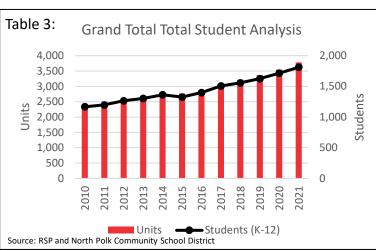
#### Total Elementary Student Analysis



Overall, students increased by 55.1%



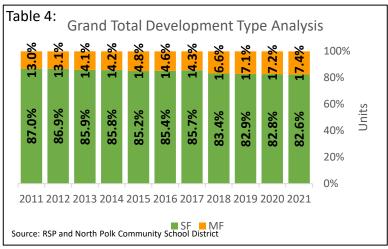




Overall, Development increased by 61.6%







- Table 1: The number of Single-Family (SF) units available by year and the number of students attending
- Table 2: The number of Multi-Family (MF) units available by year and the number of students attending
- Table 3: The total number of units and students by year
- Table 4: The percentage of units by development type (Green is SF and Orange is MF)

#### Main Takeaway:

- Students who live in single-family housing has increased by 2.3%
- Multi-family Units have increased by 114%
- Single family Units have increased by 53.7%

#### Intra-District Transfer Table

	Attend			
Reside	North Polk Central	North Polk West	Attend Total	
North Polk Central	0	19	19	
North Polk West	34	0	34	
<b>Grand Total</b>	34	19	53	

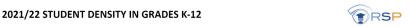
#### **Observations:**

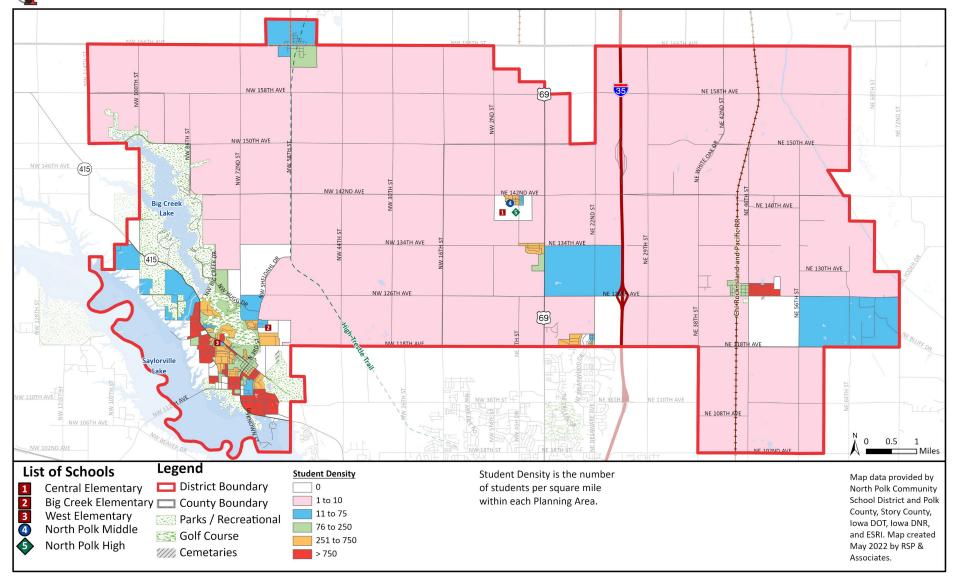
- Illustrates school choice that could be impacted by location of educational programming
- Reviewed on an annual basis and approved based on capacity availability
- Central Elementary had the most transferring in (+34)
- West ES had the most transferring out (-34)

**NOTE:** The schools in the left column are associated with the current attendance area. Reading to the right indicates a school choice change from where they are assigned based on the Reside attendance area. For example: Central has 19 students attending West Elementary School and 34 students from West Elementary School choosing to attend Central. This results in a 15 more students attending Central than what reside in that attendance area.

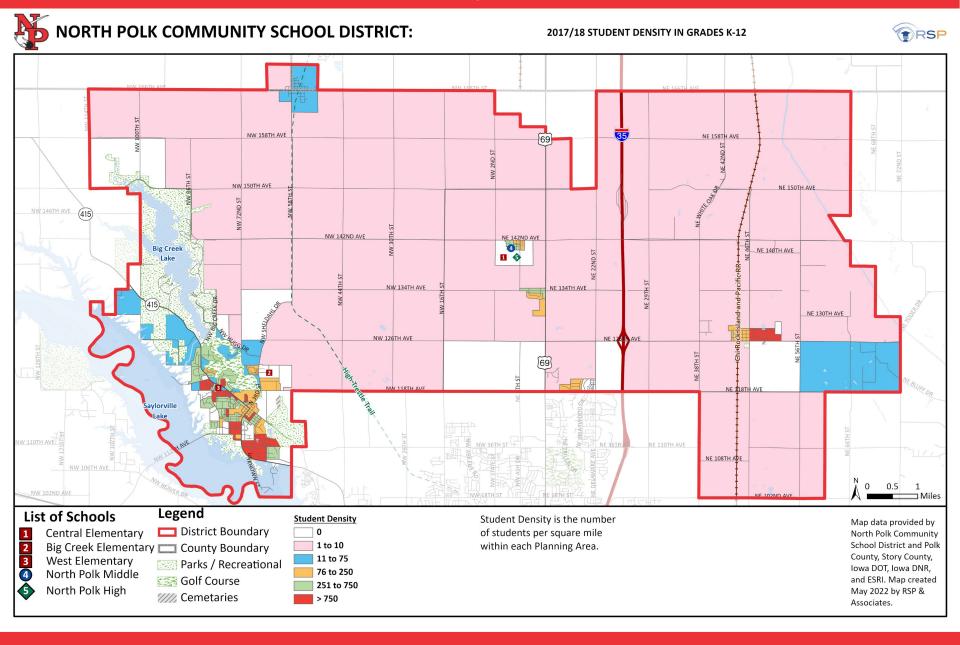
### 2021/22 Student Density







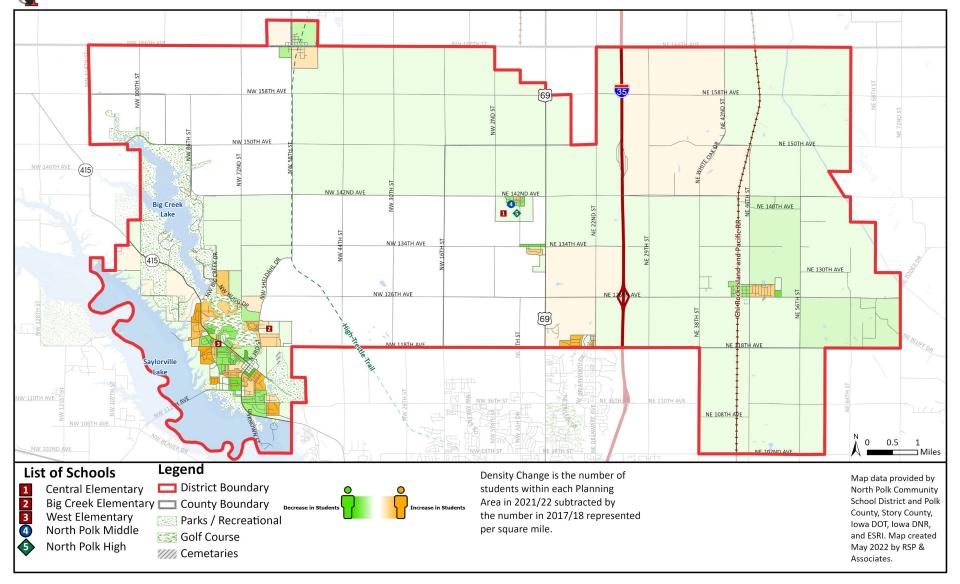
### 2017/18 Student Density



### 2017/18 to 2021/22 Student Density Change

#### NORTH POLK COMMUNITY SCHOOL DISTRICT: STUDENT DENSITY CHANGE FROM 2017/18 TO 2021/22 IN GRADES K-12



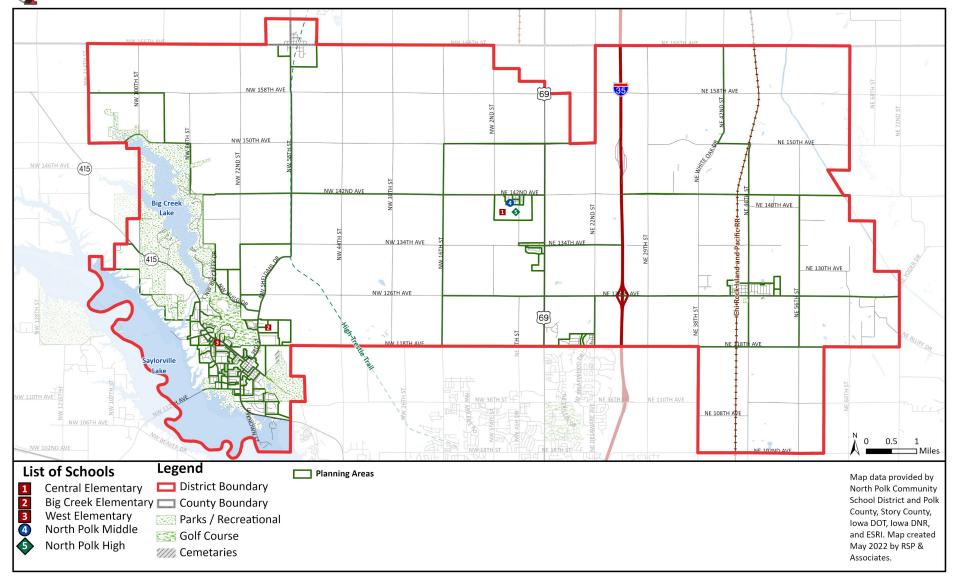


### Planning Areas

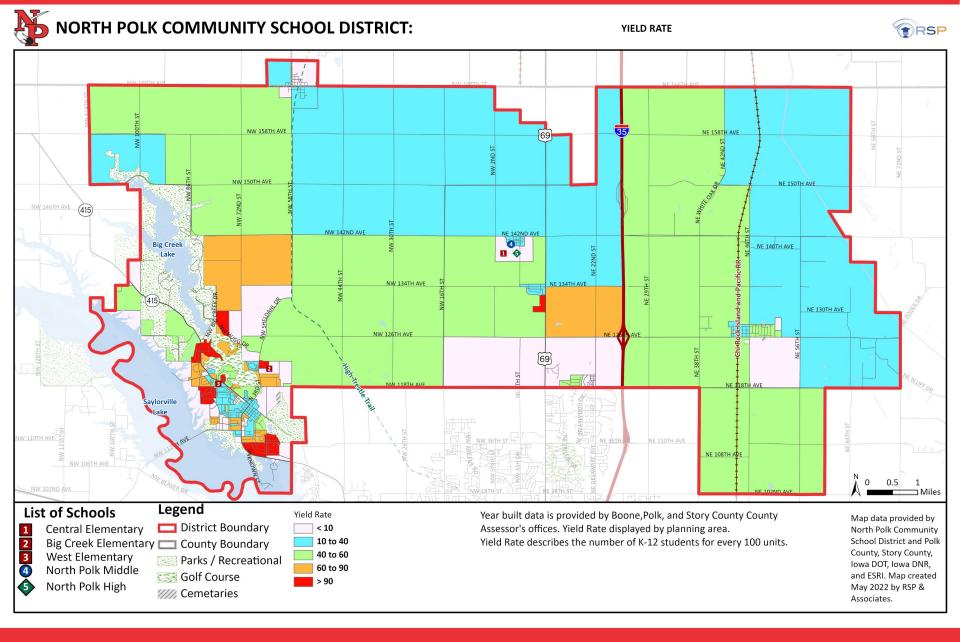
## NORTH POLK COMMUNITY SCHOOL DISTRICT:

#### **PLANNING AREAS**

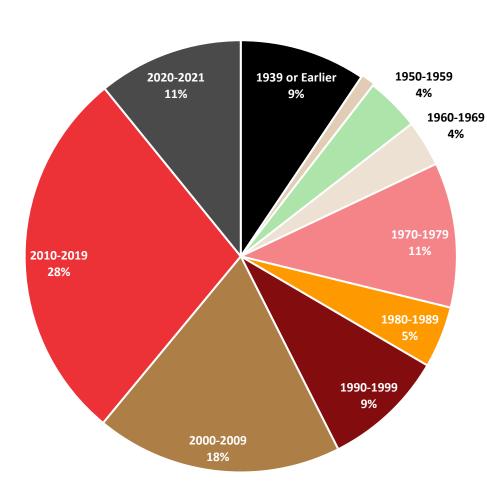




### Yield Rate Map



#### Distribution of Development Activity



#### **Observations:**

- Graphic has been created to illustrate the distribution of units by year built
- Year built based on Polk County Data and ESRI
- The decade with the most units built was 2010 to 2019 28% of total units
- The average year for all units built was 1989 and the median year built is 2004

#### **Definitions**

- o Cohort: a group of individuals having a statistical factor (such as grade level) in common in a demographic study
- Out-migration: shows number of students in grade Kindergarten to 11<sup>th</sup> that are attending the district in 2020/21 but were not attending the district in 2021/22
- o In-migration: shows number of students in grade 1<sup>st</sup> to 12<sup>th</sup> that are attending the district in 2021/22 but were not attending the district in 2020/21
- Yield-rate: ratio of students that attend each school to the number of housing units in that school's attendance area
- Single-family: a house that is may be fully detached or semi-detached occupied by one household or family
- Multi-family: a classification of housing where multiple separate housing units for residential inhabitants are contained within one building or several buildings within one complex
- o Town Homes: Side by side housing units that do not meet the definition of single-family houses
- Mobile Home Park: movable dwelling, 8 feet or more wide and 40 feet or more long, designed to be towed on its own chassis, with transportation gear integral to the unit when it leaves the factory, and without need of a permanent foundation.
- Vacant Land: means any undeveloped land/ erf within a proclaimed township or a land development area and will continue to be rated
  as vacant until such time as a certificate of occupancy
- o Mixed-use development: development that blends two or more residential, commercial, cultural, institutional, and/or industrial uses
- Median Year Built: equal to the middle point of all reported years when each dwelling unit was built based on information from the local assessor's office
- o Median Home Value: equal to the middle point of all reported home values from the assessor's office in the district