

# PRELIMINARY ASSESSMENT

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## QUALITY OF LIFE IMPACTS OF THE NIXON NORTH, NIXON SOUTH & WOODBURY CLUB REZONING REQUESTS

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## **SUMMARY**

The Huron Valley Sierra Club and area homeowners commissioned CEDS to assess the impact of three proposed development projects with regard to three quality of life factors: Traver Creek health, school overcrowding and traffic safety. The CEDS assessment showed that although the Ann Arbor staff reports and various applicant documents make the claim that none of these three quality of life factors will be impaired, the opposite is true. In fact, CEDS concludes that the three sites are fundamentally unsuited for the intensity of development at this time. However, if the applicants were to reduce the intensity of development and delay ground-breaking until school and road infrastructure is improved, then it would be appropriate to consider rezoning the sites.

### **Traver Creek Impacts**

While the staff report claim of a healthy Traver Creek is true at this time, the intensity of existing development in this part of the watershed is well below the 10% - 12% impervious area threshold where impacts become significant. If the three sites are developed as proposed then building, streets, parking lots and other impervious surfaces will cover 20% or more of the upper watershed. At this development intensity Traver Creek will lose all its fish and other aquatic life. The headwaters will also go from being safe for wading and swimming to a possible public health threat due to increasing levels of disease-causing organisms. The Washtenaw County stormwater manual quite correctly cites infiltration as the most effective practice for getting the benefits of grown with minimal aquatic resource impacts. But the applicants have only proposed treating 9% of proposed impervious areas with infiltration measures. The other 38 acres of impervious surfaces will drain to Detention Basins that only provide a part of one of the three benefits obtained through infiltration. It appears that soils on the three sites are unsuited to the use of infiltration measures. This also means the sites are fundamentally unsuited for the intensity of development proposed. As a result of these aquatic resource impacts, rezoning as requested by the applicants would violation the City's zoning ordinance and master plan. Therefore the rezoning request should be denied.

### **School Overcrowding**

It appears that the City of Ann Arbor has set the goal of keeping student enrollment at 90% of school capacity. This is certainly a laudable goal and key to preventing overcrowding. Presently Ann Arbor elementary schools average 96% of capacity with one school at 123%. In a 2014 staff report it was noted that the Ann Arbor School District did not anticipate a negative effect due to the Nixon and Woodbury projects. However, it appears that enrollment at one of the two elementary schools closest to the site increased by 50 students between Fall 2014 and Fall 2015. This school went from 96% of capacity to 108%. If the City is serious about the 90% goal, then its unlikely the District would have had the same position. Two elementary schools - Logan and Thurston - are much closer to the sites than any other. This makes it likely these two schools would receive the 113 elementary students per year that will come from the three projects. If this were the case then the combined enrollment at Logan and Thurston would go from 102% of combined capacity to 116%. It does not appear that the City has any plans to expand either school or to build a new one. Given this infrastructure shortage it is inappropriate to grant rezonings which will cause such severe overcrowding at local schools.

### **Traffic Safety**

The applicants' traffic study appears to have focused on the intersection of Nixon Road, Dhu Varren Road and Green Road. While improvements to the intersection of these roads is certainly warranted, no improvements have been proposed for more serious traffic safety issues even though these issues will be exacerbated by the three projects.

It appears that the intersection on Nixon Road and Plymouth Road is severely congested and Plymouth at Huron Parkway is very severely congested. As a result commuters spend two- to four-times longer dealing getting through these congested intersections than would result if both met the City's traffic flow policy. Also, these intersections are 31<sup>st</sup> and 86<sup>th</sup> among the top 100 most dangerous intersections in Washtenaw County.

The proposed rezonings would increase traffic volume on Nixon Road by 57% and on Plymouth Road by 17%. These very large traffic increases can only make congestion and accident rates increase. It would be unconscionable to approve the rezoning request without having projects in the works that would resolve both the congestion and safety issues.

### **Master Plan Process Flawed**

All three of these issues would best be addressed through a master plan amendment process rather than a rezoning process. Chapter 10, of the Ann Arbor Master Plan does address all three sites. But there was no mention in the Chapter 10 text of the substantial quality of life impacts identified in this report. Therefore, the master plan process was flawed and should be repeated to determine just what development density is appropriate as well as identifying infrastructure improvements needed prior to the development of the three sites.

## INTRODUCTION

Community & Environmental Defense Services (CEDS) was retained by the Huron Valley Group of the Sierra Club to assess the potential effects of three development proposals: Nixon Farm North, Nixon Farm South and the Woodbury Club Apartments. All three sites were recently annexed into the City of Ann Arbor, Michigan. Our clients also include a number of the homeowners living in the vicinity of the three projects.

This assessment focuses on issues relevant to the rezoning request before the City of Ann Arbor Council. After consultation with our clients a decision was made to focus on three quality of life issues that should be key rezoning decision factors:

- Aquatic ecosystem of Traver Creek and tributaries;
- School overcrowding; and
- Traffic safety.

## AQUATIC RESOURCE IMPACTS

The location of the three rezoning sites is shown in Figure 1, to the right. This map is from the Huron River Watershed Council *Traver Creekshed Report*.<sup>1</sup> In this report, the Council documented that the upper portion of the Creek is in Fair condition and the lower portion is in Poor condition. These degraded conditions result from covering 14% of the watershed with buildings, streets and other impervious surfaces. In the report the Council noted that the extent of impervious area is at a tipping point where further increases could cause a loss of much biological diversity. The report also noted that indicators of disease-causing organisms are already present in Traver Creek at disturbing levels. Other research has shown that at 15% impervious area disease-causing organisms tend to reach a density where it's unsafe for people to wade or swim in a waterway like Traver Creek<sup>2</sup>.

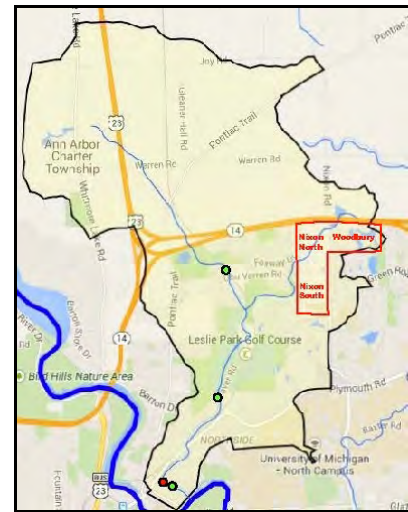


Figure 1: Traver Creek watershed from the HRWC report

The three projects will result in the development of another 129 acres of Traver Creek watershed. This will increase Traver Creek impervious area to the critical 15% threshold.

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<sup>1</sup> Traver Creekshed Report is available online at the Huron River Watershed Council website: <http://www.hrwc.org/wp-content/uploads/2015/04/traver-11x17-final.pdf>

<sup>2</sup> Mallin, M.A., K.E. Williams, E.C. Esham, and R.P. Lowe, 2000. Effect of human development on bacteriological water quality in coastal watersheds. *Ecological Applications* 10(4): 1047-1056. Available online at: <http://www.esajournals.org/doi/abs/10.1890/1051-0761%282000%29010%5B1047%3AE0HDOB%5D2.0.CO%3B2?journalCode=ecap>

The following text appears under the heading of *Preferred Hierarchy of Stormwater Runoff Control*, on page 2, of the *Washtenaw County Water Resources Commissioner Rules and Guidelines, Procedures & Design Criteria For Stormwater Management Systems*<sup>3</sup>:

“In general, the most effective stormwater runoff control is infiltration, which reduces both the runoff peak and volume, and prevents many pollutants from entering the surface water. Infiltration best management practices (BMPs) often are most effective when distributed throughout a site close to the sources of runoff and upstream of conveyance systems. Large scale infiltration measures such as basins and trenches receive more concentrated loading and are more likely to fail due to clogging.”

The impact of this development could be resolved if all impervious surfaces drained to infiltration measures, preferably those of the smaller and more reliable bioretention design. But only 3.6- of the 41.1 acres of proposed impervious area will drain to infiltration measures. The rest of the impervious surfaces will drain to detention basins which cannot resolve the impact of development upon aquatic resources. The reason given on the applicants plans for not making greater use of infiltration measures is that the soils on most of the three sites are not suitable for these measures.

Figure 2, illustrates the superiority of infiltration and bioretention (another form of infiltration) in capturing pollutants that would otherwise flow downstream and threaten human uses. The applicant’s plans indicate that stormwater management for most of the sites will be limited to Detention Basins. But the design shown on the plans indicates the basins will retain a permanent pool of water. As a result the pollutant removal of the Basins will be more akin to that shown in Figure 2, for Wet Ponds - not Detention Basins. Nevertheless, the Basins-Ponds will still only achieve a fourth and less than half the pollutant removal attained by infiltration measures.

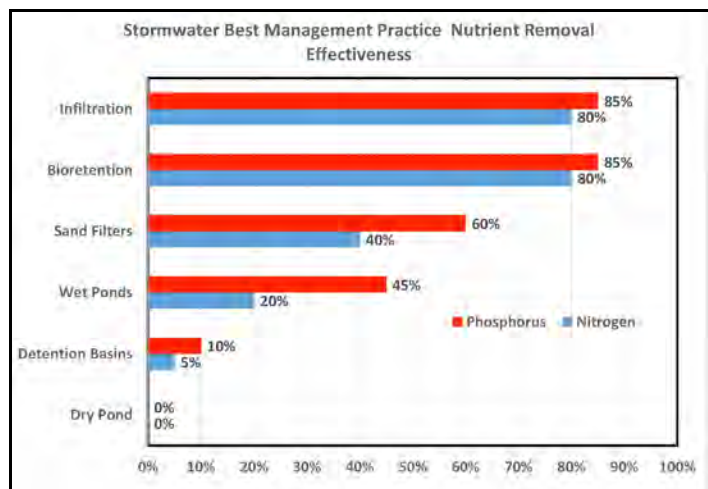


Figure 2: Pollutant Removal Efficiency of Various BMPs

Pollutant removal is only a third of the ecosystem benefits provided by infiltration. Under natural conditions about a quarter-million gallons of precipitation per acre per year soaks deep

<sup>3</sup> See: [http://www.ewashtenaw.org/government/drain\\_commissioner/dc\\_webPermits\\_DesignStandards/dc\\_Rules/frontpage](http://www.ewashtenaw.org/government/drain_commissioner/dc_webPermits_DesignStandards/dc_Rules/frontpage)

enough into the earth to recharge the groundwater table<sup>4</sup>. This water may then take weeks or years to flow to a wetland, a spring or enter directly into a stream, river, pond or lake. Sealing the ground surface with buildings, streets, parking lots and other impervious surfaces eliminates this recharge. Instead it become surface runoff. As a result, wetlands and streams in intensely developed areas have greatly diminished inflow during dry weather. Plus the dramatic increase in runoff volume accelerates the erosion of downstream channels. In fact, a typical channel might erode to a width two- to eight-times greater than before development, which destroys instream habitat, elevates water temperature and releases a tremendous quantity of sediment pollution into downstream areas. Infiltrating runoff resolves both impacts - loss of recharge and accelerated channel erosion - in a way that detention basins and wet ponds cannot. As stated on page 2, of the Washtenaw County stormwater manual, it is vitally important that infiltration be carried out at many locations evenly spread throughout a development site. If concentrated in one area then the wetlands and streams in those areas receive excessive inflow while those on other parts of a site receive far less water come dry-weather. As shown in Figure 3, below this concentration of infiltration is exactly what is proposed for the three projects.

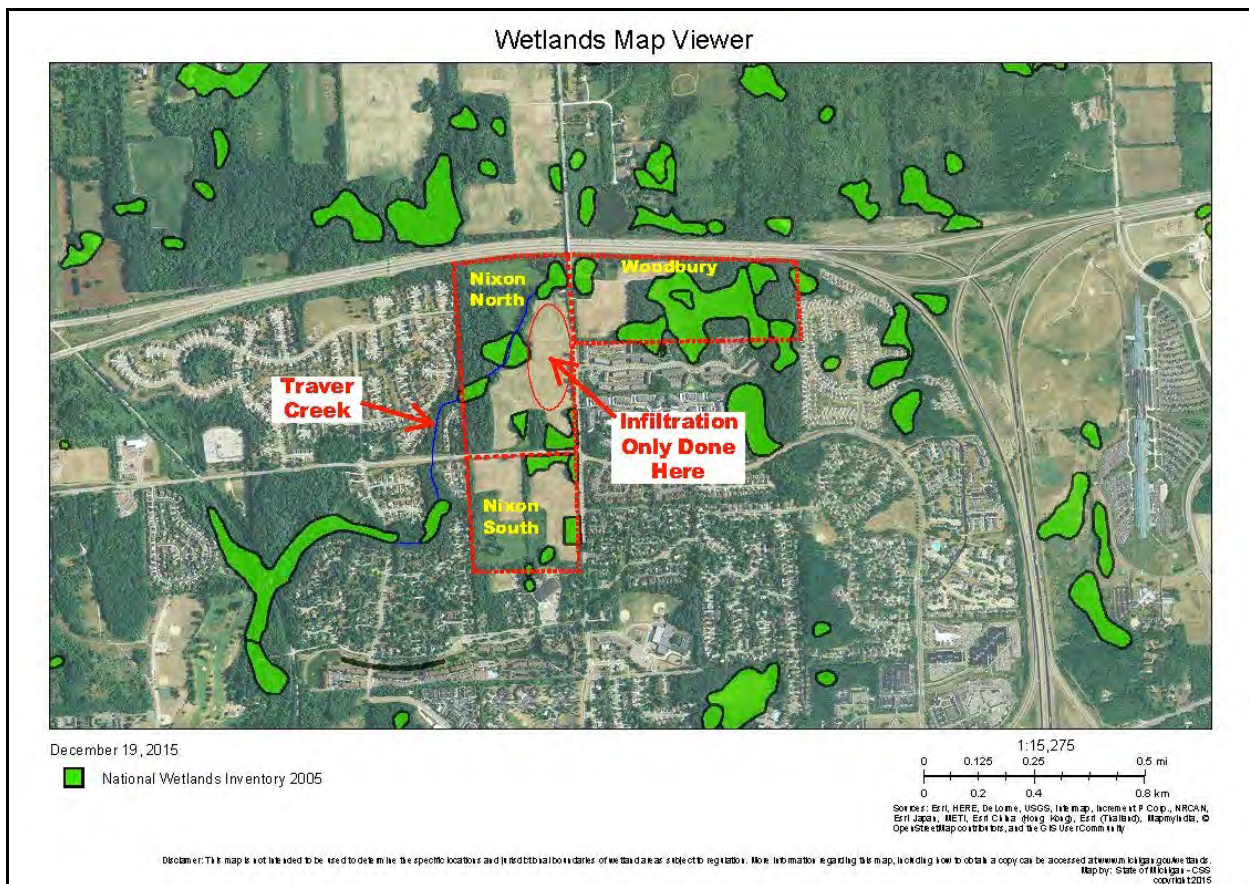


Figure 3: Infiltration is only proposed for a hill above Traver Creek where most of infiltrated runoff will flow to the stream while wetlands on the Nixon South and Woodbury sites experience a dramatic decline in inflow.

<sup>4</sup> Geohydrology and Water Quality of Kalamazoo County, Michigan, 1986-88, available online at: <http://pubs.er.usgs.gov/publication/wri904028>

With regard to stormwater runoff and suitability for Best Management Practices (BMPs), soils are rated A to D through a system known as *Hydrologic Soil Groups*<sup>5</sup>. “A” soils tend to be very sandy, with a water table far below the surface. “A” soils tend to produce the least runoff and achieve maximum infiltration. “D” soils generate the greatest runoff and tend to be clayey or have a shallow depth to the water table or bedrock. The following general guidance is provided on page 56, of the *Washtenaw County Water Resources Commissioner Rules and Guidelines Procedures & Design Criteria For Stormwater Management Systems*<sup>6</sup>:

“Soils underlying infiltration devices should have infiltration rates between 0.1 and 10 inches per hour, which in most developments should result in reasonably sized infiltration systems. Where soil permeability is extremely low, infiltration may still be possible but the surface area required could be large, and other volume reduction methods may be warranted. *Undisturbed Hydrologic Soil Groups A, B, and C often fall within the acceptable range and cover most of the state.*”

Figure 4, on the next page, shows that about two-thirds of the soils on the three sites are rated A, B or C. The B/D and C/D symbols indicate the rating of drained and undrained soils. Since the soils on the three sites would be undrained, these would be D soils. However, the Hydrologic Soil Group ratings shown in Figure 2 are not based upon site-specific testing and can be erroneous. This is why Washtenaw County requires on site testing.

The following statement, which appears on Sheet 23 of the Nixon South plans, indicates that none of the site was suitable for infiltration measures: “It was determined that infiltration was not feasible for the tested soil conditions.”

Apparently soil conditions were equally limiting on the Woodbury Club site since no infiltration is proposed for that site. But runoff from 3.6 acre of the 18 acres of impervious area on the Nixon North site will benefit from infiltration.

The following text from the October 21, 2014 Woodbury staff report indicates excess infiltration offsite may be viewed as compensation for not practicing infiltration on the Woodbury site: “Infiltration on the Nixon Farm North property in accordance with the new WCWRC rules, also serves to minimize the hydraulic impacts on site.” This same text - verbatim - appears in the December 16, 2014 staff report for Nixon Farm South.

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<sup>5</sup> For further detail on hydrologic soil groups see: [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/soils/?cid=nrcs144p2\\_027279](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/soils/?cid=nrcs144p2_027279)

<sup>6</sup> See: [http://www.ewashtenaw.org/government/drain\\_commissioner/dc\\_webPermits\\_DesignStandards/dc\\_Rules/frontpage](http://www.ewashtenaw.org/government/drain_commissioner/dc_webPermits_DesignStandards/dc_Rules/frontpage)



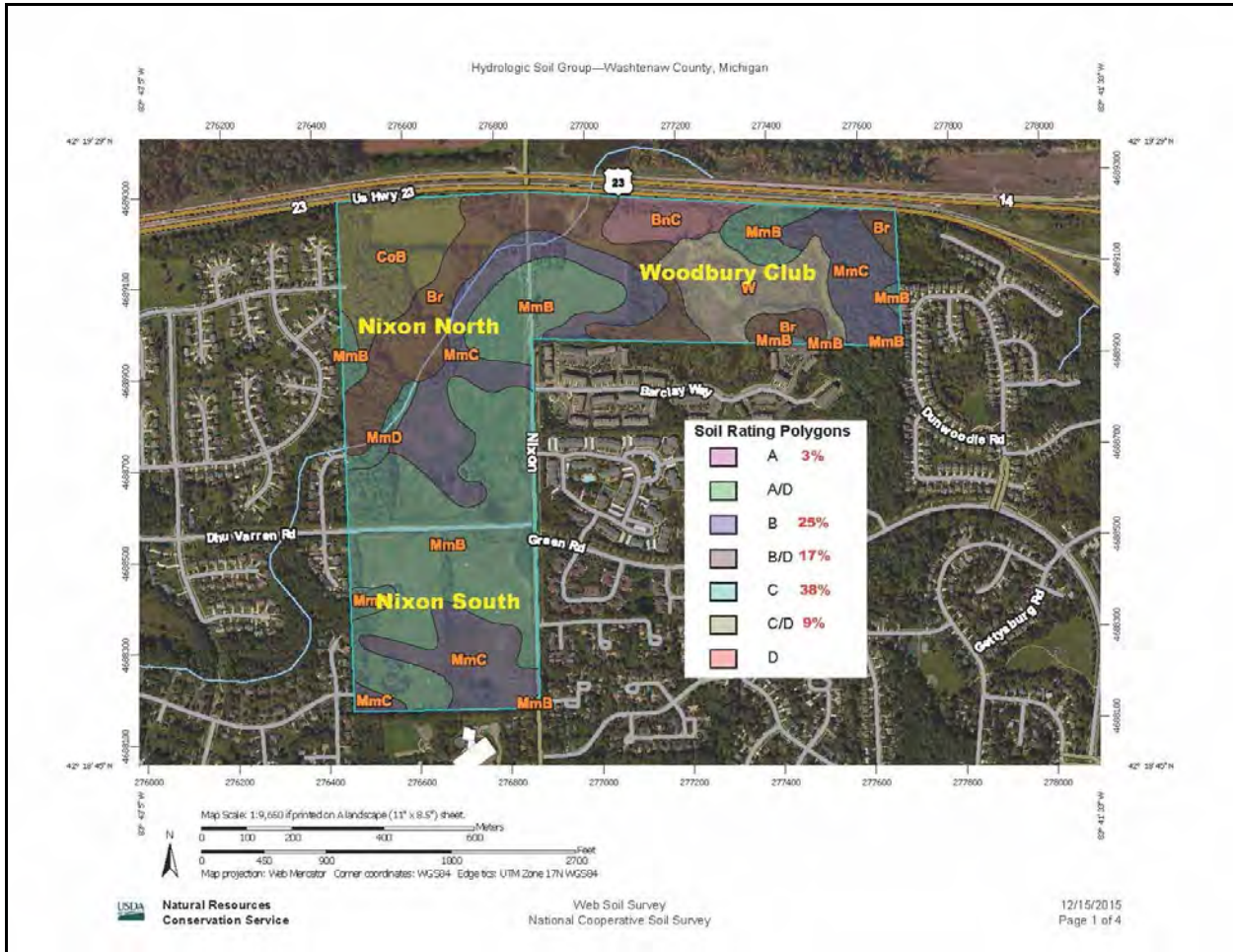


Figure 4: Hydrological Soil Groups on the Nixon & Woodbury Sites

Table 1, on the next page, shows that of the three projects only Nixon Farm North will benefit from infiltration. Of the 41 acres of proposed impervious areas only 3.6 acres will drain to infiltration measures. While runoff from the other 37.4 acres of impervious area will be treated with Detention Basins-Wet Ponds, these BMPs only provide part of one of the three benefits of infiltration. Without achieving all three benefits, the negative impacts of development upon aquatic systems cannot be prevented. As a result the three projects will cause further degradation of Traver Creek. Of even greater concern is that the projects will cause impervious area to reach the 15% threshold where disease-causing organism densities tend to exceed limits for human health protection.

All three staff reports addressed compliance with Ann Arbor Zoning Regulation §5:51(6)e, which states:

"Upon determination that a proposed activity is in the public interest, and that the benefit which would reasonably be expected to accrue from the proposal shall be greater than the reasonably foreseeable detriments of the activity, authorization for the activity within the

**Table 1: Traver Creek Land Use & Impact of Three Projects**

Variable		Value	Unit	Note
A	Traver Creek watershed area	7	square miles	From Traver Creekshed Report
B	Impervious Area:	14%	percent IA	From Traver Creekshed Report
C	Impervious Area:	0.98	square miles	A x B
D	Impervious Area:	627.2	acres	C x 640
E	Nixon North			
F		Site Area	34.9 acres	From project plans
G		Impervious Area	18.3 acres	From project plans
H		Area Infiltrated	3.6 acres	From project plans
I	Nixon South			
J		Site Area	40.9 acres	From project plans
K		Impervious Area	14.6 acres	From project plans
L		Acres Infiltrated	0.0 acres	From project plans
M	Woodbury			
N		Site Area	53.6 acres	From project plans
O		Impervious Area	8.2 acres	From project plans
P		Acres Infiltrated	0.0 acres	From project plans
Q				
R	Total for All Three Projects:			
S		Site Area	129.4 acres	F + J + N
T		Impervious Area	41.1 acres	G + K + O
U		Acres Infiltrated	3.6 acres	H + L + P
V		Total	174.0 acres	S + T + U
W				
X	Traver Creek Watershed Impervious Acres (Not Infiltrated) After Development	664.7	acres	V - U
Y	Traver Creek Watershed Percent Impervious Area (Not Infiltrated) After Development	15%	percent IA	$X \div (A \times 640)$

natural feature open space may be granted by the City Planning Commission after complete review and public hearing, as required in Chapter 57, section 5:129. The following general criteria shall be applied by the Planning Commission in making this determination:

- (e) The probable impact on recognized historic, cultural, scenic, **ecological**, or recreational values, and on fish, wildlife and public health."

All three staff reports also contained the following statement to demonstrate that this regulation was met:

"Fish (minnows) has been observed in the Nixon Farm North Traver Creek tributary and will likely continue to exist post-development given the proximity of the property to the upstream headquarters [headwaters?] limit, the preservation of the majority of wetlands on the property, and the use of WCWRC storm water management practices."

It is not surprising that Traver Creek is fairly healthy on the undeveloped Nixon North site. The only significant impervious area draining to this portion of Traver Creek is Highway 23. As a

result this part of Traver Creek is probably no more than 5% - 7% impervious. Generally watershed development does not have a significant, negative impact on aquatic ecosystems until imperviousness reaches 10%.<sup>7</sup>

The imperviousness of this headwater area may increase to 20% or more once if all three projects were built. At this degree of imperviousness most fish and other aquatic organisms will die and it is unlikely the waterway could be restored<sup>8</sup>. Clearly, the probable ecological impact will be highly negative and the projects fail the test in Ann Arbor Zoning Regulation §5:51(6)e. Also, the projects fail to meet the overarching goal of *Improve Water Quality* set forth in the Natural Features Plan of the *City Master Plan*.

The waters of Traver Creek and its tributaries will have densities of disease-causing organisms high enough that one should not have any direct contact much less attempt wading or swimming. And this creates a very serious problem.

There are a large number of homes within a short walk of this part of Traver Creek. No doubt many area children play in these waters today. Any parent knows its near impossible to keep children from playing in neighborhood streams. This only leaves one alternative: To preserve waterways in a *Child Safe & Friendly* condition. This can only happen if 100% of future impervious area drains to infiltration measures. But only 3.6 acres of the 41 acres of impervious area shown in the applicant's plans will drain to infiltration measures. Given the conflict with Ann Arbor Zoning Regulations and the City Master Plan, the rezoning request should be denied.

### **SCHOOL IMPACTS**

According to a recent Mlive article, the City of Ann Arbor has set the goal of keeping student enrollment at 90% of the capacity of individual schools<sup>9</sup>. As shown in Figure 5, on the next page, the closest schools to the Nixon-Woodbury projects are Logan Elementary, Thurston Elementary and Clague Middle School. We assume its safe to say that a large portion of students from the three projects will attend these schools. The Mlive article contained Fall 2015 enrollment figures which showed that Thurston Elementary had 461 students with a capacity of 428, which makes enrollment 108% of capacity. Logan Elementary had an enrollment and capacity of 318 and 338 or 94%. While Clague Middle was at 85% of capacity. If the City has adopted the goal of a 90% enrollment at individual schools and there are no plans for increasing capacity in your area for the near future then responsible growth management principles would dictate denying rezoning to R4A at this time.

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<sup>7</sup> *Traver Creekshed Report* is available online at the Huron River Watershed Council website: <http://www.hrwc.org/wp-content/uploads/2015/04/traver-11x17-final.pdf>.

<sup>8</sup> CWP 2003. *Impacts of Impervious Cover on Aquatic Systems*. The Center for Watershed Protection, 8391 Main Street, Ellicott City, MD 21043. [http://clear.uconn.edu/projects/tmdl/library/papers/Schueler\\_2003.pdf](http://clear.uconn.edu/projects/tmdl/library/papers/Schueler_2003.pdf)

<sup>9</sup> See *Enrollment, target capacity at all 32 Ann Arbor Public Schools*, November 30, 2015 [http://www.mlive.com/news/ann-arbor/index.ssf/2015/11/see\\_building\\_enrollment\\_at\\_ann.html](http://www.mlive.com/news/ann-arbor/index.ssf/2015/11/see_building_enrollment_at_ann.html)

The 2014 staff reports for the three projects all say the same thing with regard to schools:

"Officials from the Ann Arbor School District have confirmed there is capacity at the elementary, middle, and high schools for all school-age residents of the proposed developments."

But according to the Mlive article Thurston Elementary had 50 fewer students when the staff reports were written. Again, Thurston Elementary is presently at 108% of capacity based on the Fall 2015 figures. The most overcrowded facility is Wines Elementary School where enrollment is 123% of capacity. According to District staff the official Fall 2015 figures will be out very soon<sup>10</sup>.

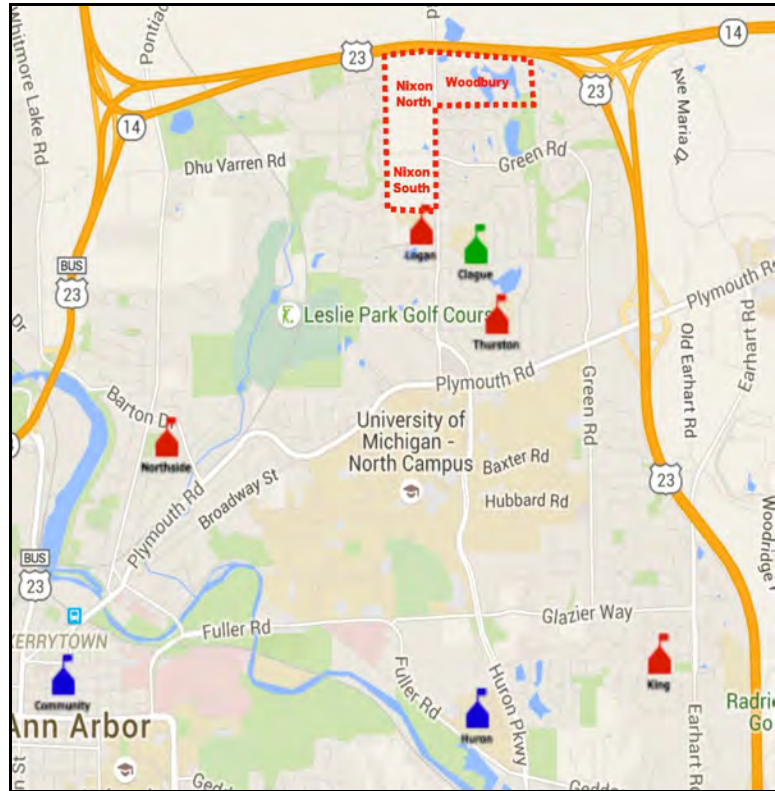


Figure 5: Schools in the Vicinity of the Nixon & Woodbury Sites

In most parts of the country local school districts use pupil or student generation tables to estimate the number of students added by new development projects. However, District staff say they do not use these tables due the mobility of Ann Arbor students. To get a handle on the impact of the three projects on student enrollment we divided current enrollment by the number of housing units in Ann Arbor to get ratios of: 0.33 students per household per year. For the three school types the ratios were:

- 0.11 high school students per household per year;
- 0.07 middle school students per household per year; and
- 0.15 elementary school students per household per year.

The three projects will create 754 additional housing units. If the ratio of 0.33 students per household per year is valid, then the projects will add 249 students. Elementary school students would increase by 113 which is equivalent to 30% of a typical Ann Arbor elementary school. Using the Mlive figures, the average Ann Arbor elementary school has an enrollment of 365

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<sup>10</sup> Personal communication with Jane Landefeld, Ann Arbor Public Schools Student Accounting & Research Services, December 18, 2015.

students and a capacity of 381. On average an Ann Arbor elementary school is at 96% of capacity.

Combined, Logan and Thurston Elementary schools have a capacity of 766 students and a Fall 2015 enrollment of 779 students or 102% of capacity. The next nearest school - Northside Elementary - is 1.5 miles distant. If all 113 students from the three projects went to Logan and Thurston, then combined enrollment could reach 892 students or 116% of capacity.

It does not appear that either an expansion of Logan and Thurston nor construction of a new school is being contemplated. If this is correct then options for resolving the overcrowding issue could include increasing class size, portable classrooms, or adjusting school boundaries if there's excess capacity, to name the most likely. It is doubtful that Ann Arbor parents would look favorably upon any of these options.

There is a large body of research, albeit controversial, about the vital importance of keeping class size small, particularly for Kindergarten through Third Grade<sup>11</sup>. While portable classrooms may keep class size from greatly inflating, overcrowding taxes other school functions. The classic worse case is where a school is so overcrowded that parents must stand in the hall outside the cafeteria, gym or auditorium to catch a glimpse of their children performing inside. School boundary adjustments can mean that students no longer attend classes with "life-long" friends along with other adjustments that detract from performance.

It is clear that Ann Arbor cannot meet its goal of keeping enrollment at or below 90% of school capacity if the three properties are rezoned at this time. Therefore the Ann Arbor City Council should deny rezoning and instead direct new growth to those areas where enrollment is well below the 90% threshold.

## **TRAFFIC IMPACTS**

Traffic congestion is rated on a scale of "A" to "F". This scale is called Level of Service or LOS. The *Highway Capacity Manual*, published by the Transportation Research Board, serves as the primary reference for assessing LOS<sup>12</sup>. As shown in Figure 6, on the next page, there is minimal delay when roads are operating at an LOS of A to C. Most roads have a congestion level of A to C except at weekday rush-hours (7:00 - 9:00 am; 4:00 - 6:00 pm). The City of Ann Arbor requires an LOS of "D" or better. At an LOS of "E" or "F" you'll spend two- to four-times longer sitting in congested traffic compared to "D".

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<sup>11</sup> The Tennessee Study of Class Size in the Early School Grades, available online at: [https://www.princeton.edu/futureofchildren/publications/docs/05\\_02\\_08.pdf](https://www.princeton.edu/futureofchildren/publications/docs/05_02_08.pdf)

Class Size: What Research Says and What it Means for State Policy, The Brookings Institute, available online at: <http://www.brookings.edu/research/papers/2011/05/11-class-size-whitehurst-chingos>

<sup>12</sup> See: <http://hcm.trb.org>

From having reviewed traffic studies throughout the nation, we've found that general practice is to extend a project-specific study out to the first signalized intersection or a mile and a half, whichever comes first. In fact a rather dated Michigan guidance document seems to call for going out at least one mile<sup>13</sup>. Nixon South is within one mile of Plymouth Road while Nixon North and Woodbury are within 1.5-miles. But at issue are three major projects which should trigger the need for more of a regional scale study.

The applicant's traffic analysis appears to have focused on the Nixon/Dhu Varren/Green intersection although the intersections of Nixon Road with Plymouth Road and Huron Parkway were briefly addressed. However, the only improvements proposed are to the Nixon/Dhu Varren/Green intersection.

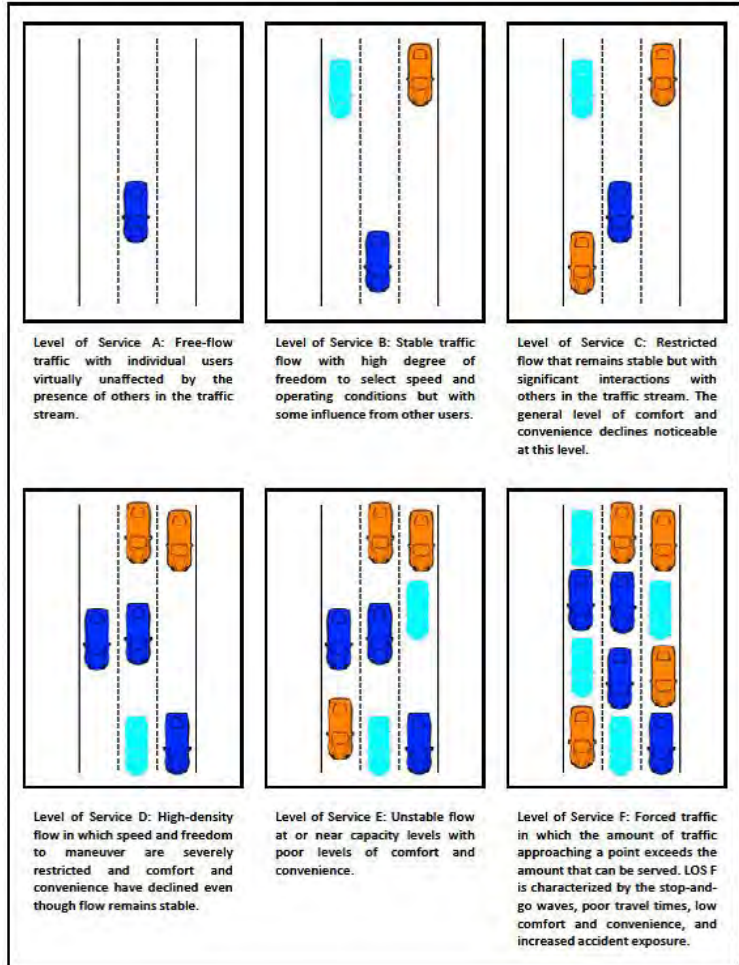


Figure 6: Traffic Congestion Level Of Service Examples

Included within the 2014 staff reports was references to the November, 2014, *Traffic Impact Study for the Proposed Nixon Property Condominiums*. This study contained the following text:

“All existing turning movements at the studied intersections operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours except movements at the Nixon Road and Meade Court/Bluett Drive intersection, Nixon Road and Plymouth Road intersection and Huron Parkway and Plymouth Road intersection which had level of service values from "E" to "F.””

This text seems to imply that Nixon Road at Plymouth Road and at the intersection of Plymouth and Huron Boulevard is operating at an “E” or “F” level of service or severe congestion.

<sup>13</sup> *Evaluating Traffic Impact Studies - A Recommended Practice for Michigan Communities*, Michigan DOT, 1994, available online at: <http://ntl.bts.gov/DOCS/etis.html>

In May, 2009, the City of Ann Arbor *Transportation Master Plan Update* was published. Figure 4-4, appeared on page 4-11 of the Plan update. Figure 4-4 appears on the next page of this assessment and shows that in 2008 the intersection of Plymouth Road and Nixon Road was operating at an LOS of “E” and Plymouth at Huron Parkway was at an LOS of “F”. Text in the staff report indicated that the City wished the applicants to study these intersections, but it is unclear whether this happened. But it is clear that the only improvements being made are to the intersection of Nixon/Dhu Varren/Green intersection.

Data contained in the November, 2014, *Traffic Impact Study for the Proposed Nixon Property Condominiums*, also indicates the three projects will generate 3,963 trips per day, most of which will use Nixon Road. According to rather dated traffic counts from the SEMCOG webpage<sup>14</sup>, Nixon Road traffic is about 7,000 trips per day just south of the three sites. With the three projects we'd see a 57% increase in traffic volume on Nixon Road. Plymouth Road west of Huron has a daily traffic volume of about 24,000 trips per day. So the three projects would increase Plymouth Road traffic volume by 17%. Such an increase could push an LOS of “E” intersection down to the most severe congestion rating of “F”. Again, the City’s goal is an LOS of “D” or better. Clearly, the impact of the three projects on Nixon and Plymouth Road traffic is far from minor or inconsequential and is on much more of a regional scale.

The intersection of Nixon Road and Huron Parkway is 31<sup>st</sup> out of the 100 most dangerous intersections in Washtenaw County and Nixon at Plymouth is ranked 86<sup>th</sup> according to SEMCOG<sup>15</sup>. The 17% to 57% increase in traffic volume can only increase accidents rates at locations impacted by the congestion at both intersections.

Of course it's entirely possible that projects are in the works which would reduce Plymouth Road congestion and accident frequency to an acceptable level. However, the City of Ann Arbor *FY2016 - 2021 Capital Improvements Plan* does not show any relevant projects<sup>16</sup>.

If there are no such projects then I would strongly urge you to oppose the rezoning as premature. Responsible growth management principles dictate that rezoning not occur until commitments are made to carry out infrastructure improvements that will accommodate a project without making our roads less safe. In fact our goal should be to resolve both the safety and congestion issues.

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<sup>14</sup> See: <http://semcog.org/Traffic-Counts>

<sup>15</sup> See: <http://semcog.org/Data-and-Maps/High-Frequency-Crash-Locations>

<sup>16</sup> See: <http://www.a2gov.org/departments/systems-planning/capital-improvements/Pages/FY2016---2021-Capital-Improvements-Plan.aspx>

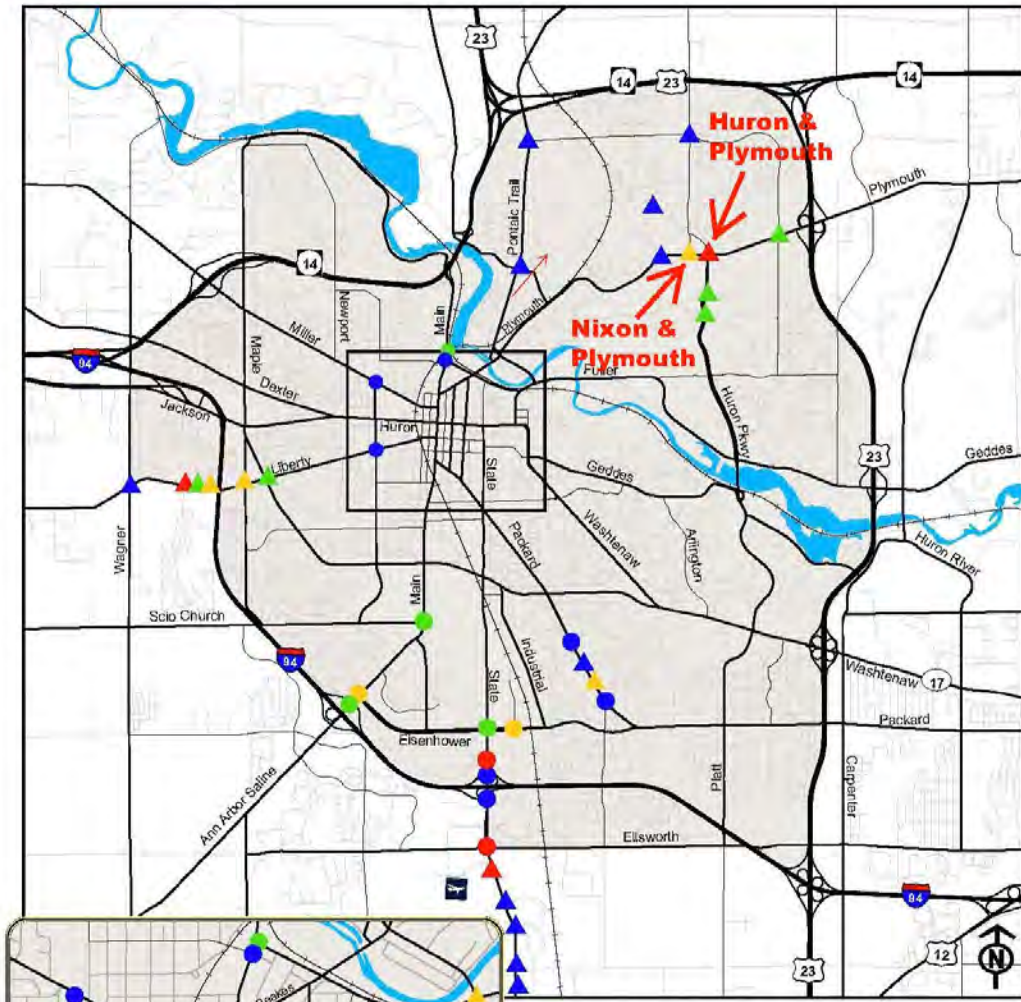


Figure 4-4: Ann Arbor Existing Conditions Intersection 2008 Levels of Service-PM Peak Hour

