



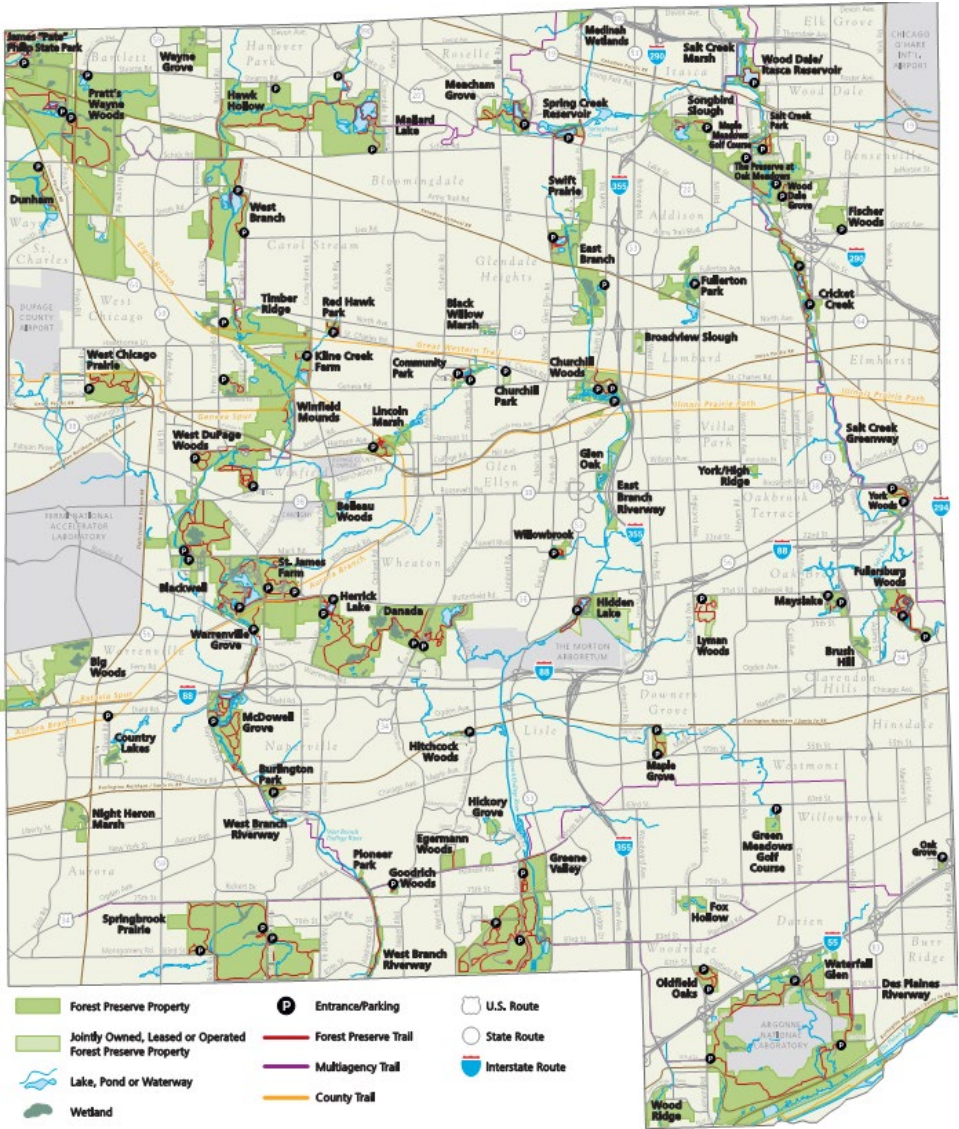
**Forest Preserve District
of DuPage County**

Grounds and Natural Resource Management

Operational Assessment and Logistics Plan
Evaluation Presentation

FPDDC Mission:

"to acquire and hold lands containing forests, prairies, wetlands and associated plant communities or lands capable of being restored to such natural conditions for the purpose of protecting and preserving the flora, fauna and scenic beauty for the education, pleasure and recreation of its citizens."



FPDDC Purpose:

"to acquire, preserve, protect and restore the natural resources in DuPage County while providing opportunities for people to connect with nature."

Grounds and Natural Resource Management Operational Assessment and Logistics Plan
Evaluation Presentation

5/24/2022

CHURCHILL
WOODS



SWIFT
PRAIRIE



BLACKWELL



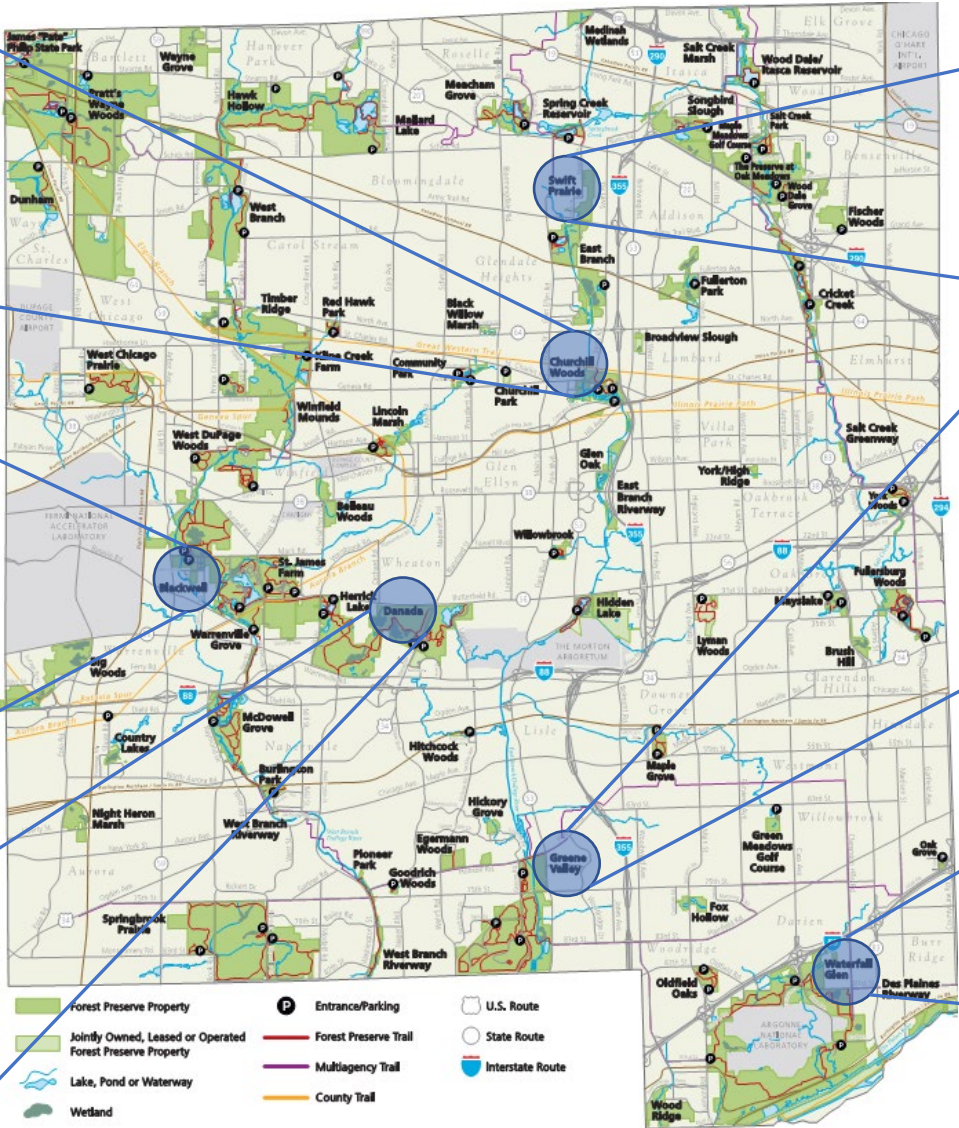
GREENE
VALLEY



WATERFALL
GLEN





DANADA



Asset Locations

Documentation Review






**Blackwell Fleet and Grounds Maintenance Buildings
Needs Assessment Report**

Forest Preserve District of DuPage County
January 23, 2007

2-021-050
Prepared by:
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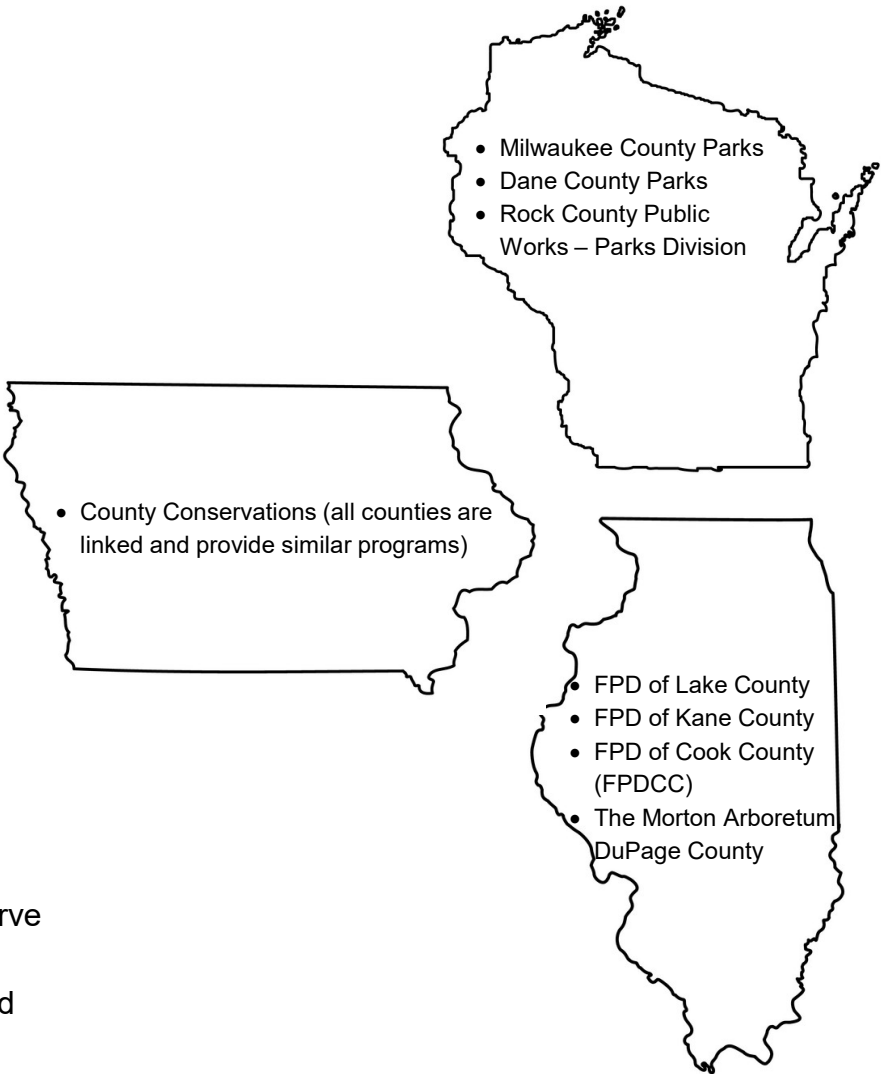
**2020 NATURAL
RESOURCES AND
GROUNDS
MAINTENANCE NEEDS
ASSESSMENT REPORT
UPDATE**

March 2020

H.W. Lochner, Inc.
Land Planning & Design, LLC

Trends

- Move from *preservation-to-restoration*.
- Land acquisition.
- Restoration of the light transmission.
- The impact of trees on climate change.
- Renewable and green technology usage.
- Developing of partnerships and collaborating with like-minded



Focus

- Trail connecting and interconnecting of preserves
- Expanding programs
- Developing additional education programs and expanding communication with the public
- Research development and archeological surveys on forest preserve properties.
- Installation of bi-lingual signage at the preserves public access and points of use.

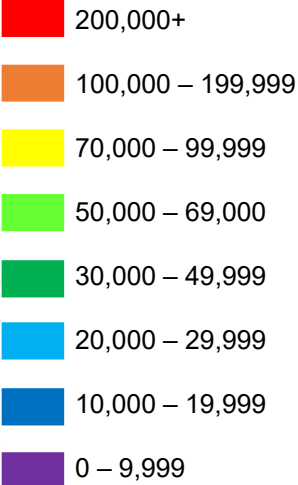
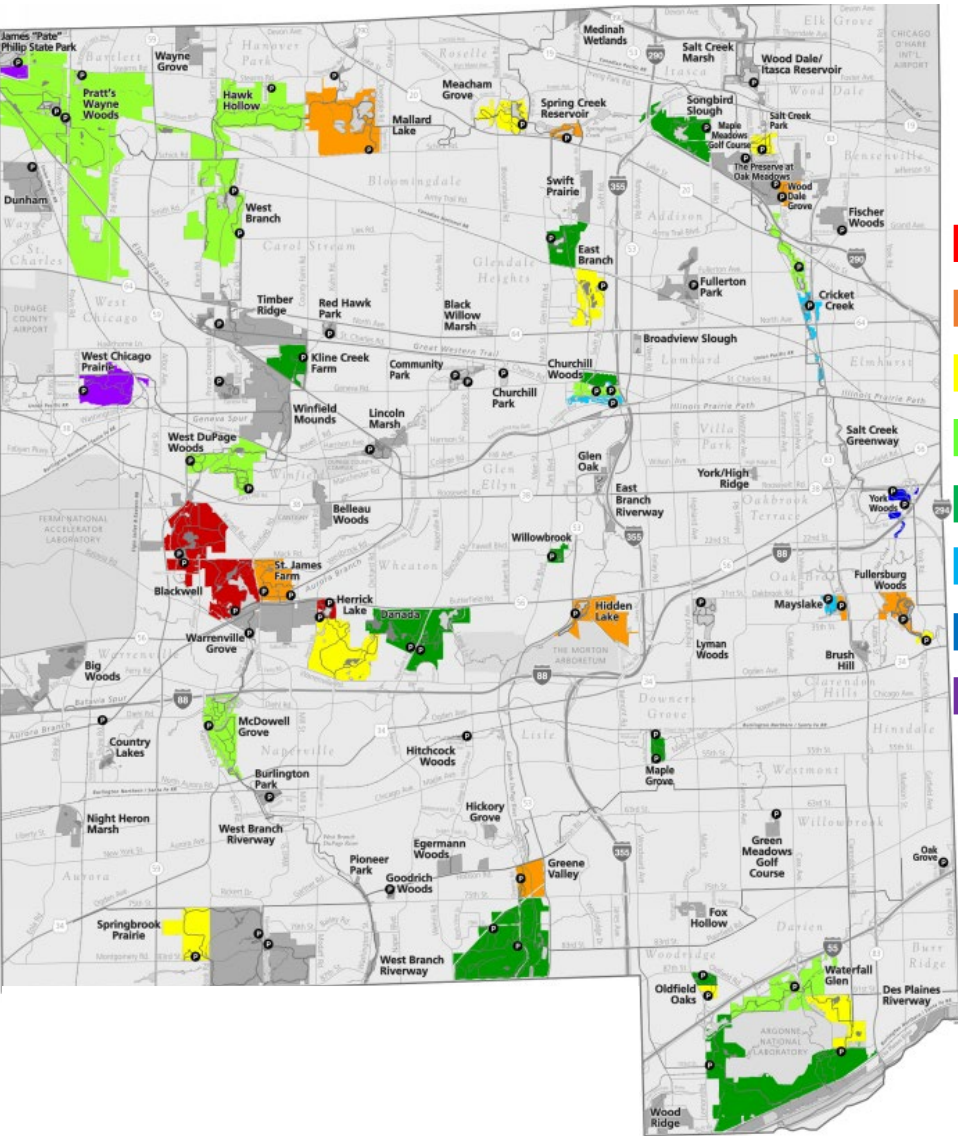


Preserve Usage Analysis

Grounds and Natural Resource Management Operational Assessment and Logistics Plan

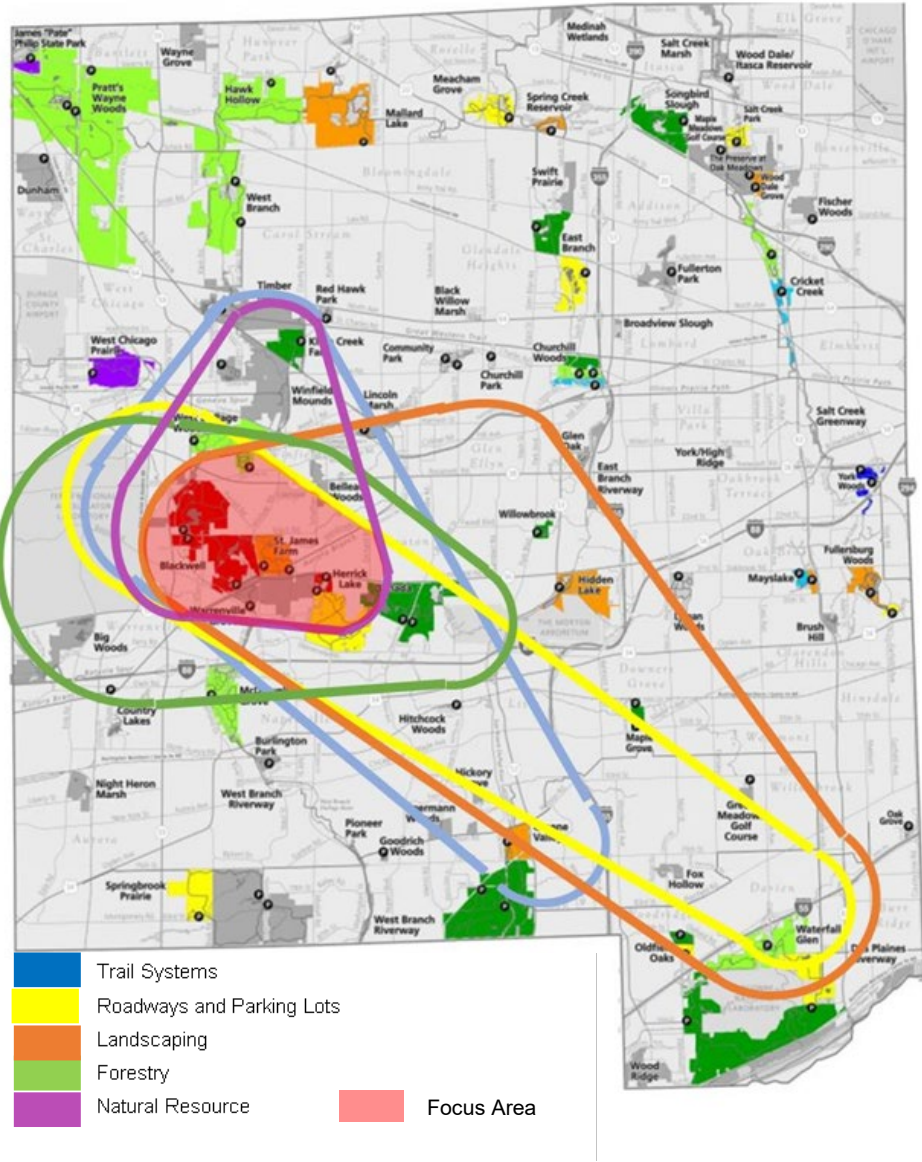
Evaluation Presentation

5/24/2022



Ops	Preserve	2016 (1)	2017 (1)	% Change 2016 to 2017	2018 (1)(2)	% Change 2017 to 2018	2019 (1)	% Change 2018 to 2019	2020 (1)(2)	% Change 2019 to 2020	Grounds Crew Total Labor Hours 2016 thru 2020 (3)
B50	Blackwell - Main	160,480	164,915	3%	151,894	-8%	147,027	-3%	254,357	73%	42,806.28
B50	Danada	61,420	58,288	-5%	44,592	-23%	30,855	-31%	45,806	48%	22,947.08
B50	Elsen's Hill	11,620	11,372	-2%	10,581	-7%	9,692	-8%	18,576	92%	
B50	Hawk Hollow – Off Leash Dog	39,217	44,174	13%	39,378	-11%	44,902	14%	53,722	20%	4,020.44
B50	Herrick Lake - Main	87,681	94,992	8%	83,443	-12%	85,094	2%	207,417	144%	9,358.25
B50	Herrick Lake – South	67,636	70,940	5%	65,745	-7%	67,197	2%	82,087	22%	
B50	Klein Creek Farms	31,947	32,532	2%	30,699	-6%	31,772	3%	43,268	36%	
B50	Mallard Lake	64,254	83,424	30%	77,453	-7%	81,229	5%	158,976	96%	4,881.85
B50	McDowell Grove	53,968	34,005	-37%	28,708	-16%	37,796	32%	51,981	38%	3,670.50
B50	Pratt's Wayne Woods – Air Field	9,719	9,542	-2%	8,326	-13%	8,908	7%	9,818	10%	6,863.35
B50	Pratt's Wayne Woods – Main	52,955	40,388	-24%	47,476	18%	45,104	-5%	51,722	15%	
B50	Springbrook – Off Leash Dog Area	57,816	62,497	8%	55,416	-11%	55,366	0%	87,101	57%	6,397.43
B50	St. James Farm	46,455	45,654	-2%	48,570	6%	50,926	5%	104,154	105%	9,772.75
B50	West Branch	44,027	50,521	15%	43,809	-13%	47,318	8%	69,283	46%	5,029.75
B50	West Chicago Prairie	4,245	6,160	45%	5,174	-16%	6,835	32%	7,795	14%	781.80
B50	West Dupage Woods	17,339	17,517	1%	15,376	-12%	26,534	73%	51,751	95%	3,847.38
CSO	Churchill Woods -Central	53,703	52,345	-3%	49,207	-6%	46,851	-5%	56,371	20%	
CSO	Churchill Woods - Crescent	18,132	17,263	-5%	13,046	-24%	14,183	9%	19,144	35%	5,438.69
CSO	Churchill Woods - Shelter	28,985	28,403	-2%	26,889	-5%	27,260	1%	30,582	12%	
CSO	Cricket Creek	65,161	72,732	12%	68,083	-6%	60,568	-11%	61,695	2%	6,161.25
CSO	Cricket Creek - Model Boat	14,204	11,762	-17%	9,725	-17%	12,624	30%	25,275	100%	
CSO	East Branch	51,964	48,007	-8%	40,259	-16%	46,691	16%	40,155	-14%	3,128.90
CSO	East Branch - Off Leash Dog Area	70,104	78,756	12%	76,599	-3%	74,768	-2%	72,335	-3%	
CSO	Fullersburg	71,240	82,249	15%	67,193	-18%	81,363	21%	110,352	36%	13,554.70
CSO	Graue Mill	59,161	65,173	10%	83,719	28%	74,538	-11%	90,768	22%	
CSO	Greene Valley - North Area	93,374	119,467	28%	113,951	-5%	115,424	1%	129,827	12%	
CSO	Greene Valley - South	37,819	40,944	8%	38,025	-7%	35,941	-5%	41,647	16%	13,935.00
CSO	Greene Valley - ThunderBird	24,582	24,868	1%	23,652	-5%	25,670	9%	31,003	21%	
CSO	Hidden Lake	79,224	76,131	-4%	68,240	-10%	72,595	6%	129,417	78%	4,005.20
CSO	Maple Grove	35,883	35,313	-2%	33,048	-6%	33,873	2%	43,506	28%	2,014.50
CSO	Mayslake - Off Leash Dog Area	50,129	103,878	107%	95,955	-8%	101,085	5%	115,695	14%	6,356.87
CSO	Mayslake Mansion	40,904	43,980	8%	39,475	-10%	36,474	-8%	26,870	-26%	
CSO	Meacham Grove - Circle Ave	35,782	49,488	38%	45,920	-7%	54,460	19%	76,149	40%	4,267.20
CSO	Oldfield Oaks	21,857	24,329	11%	24,101	-1%	24,650	2%	44,405	80%	5,072.00
CSO	Oldfield Oaks - Off Leash Dog Area	N/A	N/A	N/A	18,175	N/A	57,843	218%	71,787	24%	
CSO	Salt Creek Park	59,077	46,154	-22%	53,989	17%	63,335	17%	78,722	24%	3,982.21
CSO	Songbird Slough	25,302	38,114	51%	33,765	-11%	36,707	9%	49,093	34%	2,654.67
CSO	Spring Creek Reservoir	67,576	61,939	-8%	71,918	16%	84,246	17%	117,322	39%	2,752.05
CSO	Waterfall Glen - Lemont	36,477	33,180	-9%	38,287	15%	38,831	1%	49,626	28%	
CSO	Waterfall Glen - Outdoor Ed	68,183	75,635	11%	75,853	0%	73,311	-3%	72,489	-1%	18,880.63
CSO	Waterfall Glen - Trail Head	36,679	48,941	33%	45,991	-6%	51,533	12%	69,287	34%	
CSO	Willowbrook	69,934	52,403	-25%	50,699	-3%	51,498	2%	30,124	-42%	2,890.00
CSO	Wood Dale Grove	70,543	61,852	-12%	83,928	36%	108,842	30%	149,612	37%	3,970.50
CSO	York Woods - North	11,859	9,777	-18%	9,502	-3%	9,787	3%	12,965	32%	
CSO	York Woods - South	40,287	38,838	-4%	20,006	-48%	17,133	-14%	18,054	5%	2,595.20
	Totals	2,148,904	2,268,842	6%	2,175,840	-4%	2,308,639	6%	3,162,091	37%	222,036.43

Preserve Heat Map



Crew Access Analysis

- Trail Systems
- Roadways and Parking Lots
- Landscape
- Forestry
- Natural Resources

The concentrated areas are further defined by the Common Denominators as outlined and highlighted in red. This would indicate that the best place to locate a facility to accommodate these primary functions would fall within these boundaries. As a result, the facilities in consideration include:

Facilities within the Focus Area

Blackwell	54,475 Hours	9.7%
Danada	22,946 Hours	5.9%
Herrick Lake	13,095 Hours	2.9%
St James Farm	10,969 Hours	2.6%
Warrenville Grove	1,080 Hours	0.4%
Total Hours spent within this Focus Area		21.54%

The data confirms that of the 337 square miles within DuPage County; nearly 22% of all work performed by the FPDDC Crews is done within this 2.5-mile radius; therefore, placement of a consolidated facility within this focus area would be the most beneficial with regards to minimizing the time and resources required to access these spaces.

Focus Area

Grounds and Natural Resource Management Operational Assessment and Logistics Plan Evaluation Presentation

5/24/2022

Location	Proximity to Current Resources	Utility Resources	Open Land Availability	Proximity to Residences	Impact to Traffic	Environmental Impact	Viability
Blackwell	<ul style="list-style-type: none"> Adjacent to Fleet Management – previous studies for Fleet Management placement pointed to Blackwell as being a centralized location. Adjacent to Fuel Island, Nursery and Facilities Management Central to a majority of physical assets the District maintains. 	<ul style="list-style-type: none"> Sanitary Sewer – Existing Available Water – Existing Available Natural Gas – Existing Available Electric – Existing Available 	<ul style="list-style-type: none"> The property is currently utilized for this facility with adequate space for the proposed work. Additional temporary staging area is available on the West portion of the property. Minimal need for additional natural resource impacts, i.e tree removals, etc. 	<ul style="list-style-type: none"> Single-family residences border to the site on the East. Potential neighborhood association conflict – Blackwell Fleet Management Building encountered issues but were able to reach a suitable solution. Current gravel areas proposed to be asphalt so less dust / pollutants in the air. 	<ul style="list-style-type: none"> Low - Already operating out of this location – traffic patterns already established. No additional traffic planned or anticipated on Mack Rd. 	<ul style="list-style-type: none"> Low - Environmental impact would be minimal since the new development will be on existing development. New facilities will have lower energy costs and heating and cooling efficiencies. There will be measures in place to comply with Dark Skies initiatives. Reduces need to duplicate resources that other sites do not have but Blackwell does. 	<ul style="list-style-type: none"> Viability is high. Currently in use for this facility.
Danada	<ul style="list-style-type: none"> Property is the furthest, in this group of properties, from Blackwell for Fleet Management, Facilities Management and Nursery Former Equestrian Field site is located on the same property as the District Headquarters 	<ul style="list-style-type: none"> Sanitary Sewer – Not Easily Available Water – Not Easily Available Natural Gas – Not Easily Available Electric – Not Easily Available 	<ul style="list-style-type: none"> The proposed site is an open field. Danada-Herrick Lake Regional Trail is located directly North of the portion of the property available. 	<ul style="list-style-type: none"> Single-family residences border the site to the South. 	<ul style="list-style-type: none"> Low - Minimal impact to traffic would be expected. Located’’ I-88 and Naperville Road. Several large facilities are currently in the area which also have access from Naperville Road. 	<ul style="list-style-type: none"> High - There are several small bodies of water and forest area adjacent to the proposed site which could impact the local ecosystem with the construction and the daily noise. 	<ul style="list-style-type: none"> Viability is medium to low.
Herrick Lake	<ul style="list-style-type: none"> Property is in close proximity to Blackwell for Fleet Management, Facilities Management and Nursery 	<ul style="list-style-type: none"> Sanitary Sewer – Not Easily Available Water – Not Easily Available Natural Gas – Not Easily Avail. Electric – Not Easily Available 	<ul style="list-style-type: none"> The southwest corner of Butterfield Rd. and Herrick Rd. is the only open land available 	<ul style="list-style-type: none"> Single-family residences are located South of the proposed site. 	<ul style="list-style-type: none"> Low - Minimal impact to traffic would be expected since access to and from the site would be from Herrick Road leading to Butterfield Road and Warrenville Road. 	<ul style="list-style-type: none"> Low - Minimal environmental impact would be anticipated. 	<ul style="list-style-type: none"> Viability is medium.
St. James Farm	<ul style="list-style-type: none"> Property is adjacent to Blackwell for Fleet Management, Facilities Management and Nursery 	<ul style="list-style-type: none"> Sanitary Sewer – Existing Available Water – Existing Available Natural Gas – Existing Available Electric – Existing Available 	<ul style="list-style-type: none"> The open space available is centrally located in property and currently used in conjunction with activities on the property. A trail crosses the site at the South edge. The amount of open space is insufficient for the new facility. 	<ul style="list-style-type: none"> Single-family residences border the site to the North and East. 	<ul style="list-style-type: none"> Low - Direct impact to traffic would be minimal, however access to the portion of the property would be through the current facility and may conflict with its activities. 	<ul style="list-style-type: none"> Low - Minimal impact to the environment would be anticipated since the proposed site is an open field. 	<ul style="list-style-type: none"> Viability is low. Currently used as an event space.
Warrenville Grove	<ul style="list-style-type: none"> Property is adjacent to Blackwell for Fleet Management, Facilities Management and Nursery 	<ul style="list-style-type: none"> Sanitary Sewer – Not Available Water – Not Available Natural Gas – Not Available Electric – Not Available, existing sub-station is located nearby. 	<ul style="list-style-type: none"> Open land is not available. 	<ul style="list-style-type: none"> Single-family residences border the site to the South and East. 	<ul style="list-style-type: none"> Low - The property is bordered to the North by Butterfield Road. Access is currently non-existent. 	<ul style="list-style-type: none"> High - Environmental impact would be great since the property contains primarily forest area with a stream traversing the property. 	<ul style="list-style-type: none"> Viability is low to non-existent.

Preserve Usage Analysis

Crew Operations and Internal Assessments

Crews Operations and Internal Assessments:

1. Grounds Management - Trails and Streams Crew
2. Grounds Management – Roads Crew
3. Grounds Management – Landscape Crew
4. Grounds Management – Forestry Crew
5. Natural Resource - Management Crew
6. Natural Resource - Management Stewardship Coordinator
7. Natural Resource – Program Support

The image shows two overlapping questionnaire forms. The top form is titled 'QUESTIONNAIRE' and 'GROUNDS MANAGEMENT FORESTRY CREW FOREMAN'. It contains 10 numbered questions about building locations, equipment storage, crew members, work time, task lists, and office needs. The bottom form is also titled 'QUESTIONNAIRE' and 'GROUNDS MANAGEMENT FORESTRY CREW STAFF'. It contains 10 numbered questions about work time, task lists, equipment, uniforms, showers, locker needs, productivity challenges, and workspace facilities. Both forms include a list of tasks that are not included on the task list, such as Aerial rescue, Tree removal, Heavy equipment operation, Tree trimming and pruning, Tree inventory and GIS data mapping, Maintain tree and shrub nursery, Tree planting – working with Landscaping Crew, Turf restoration, River Clearing, Rescuing and re-nesting fledging birds, Special Programs – education, Assist Structural Maintenance, Supply camp grounds with firewood, and Green waste recycling program.

QUESTIONNAIRE
GROUNDS MANAGEMENT FORESTRY CREW FOREMAN

1. How many buildings do you operate out of at Blackwell and additional locations?
2. How many vehicles or large pieces of equipment need to be stored indoors? In
3. Crew Members
 - a. How many crew members are currently working?
 - b. With the current amount of work how many more crew members do you need?
 - c. Are there seasonal crew members?
4. How much time does it take, during each season, from arriving at work to starting first task?
5. Please review the following crew task list. Are there tasks that you have not included on the list below? If so, please briefly explain.
 - Aerial rescue
 - Tree removal
 - Heavy equipment operation
 - Tree trimming and pruning
 - Tree inventory and GIS data mapping
 - Maintain tree and shrub nursery
 - Tree planting – working with Landscaping Crew
 - Turf restoration
 - River Clearing
 - Rescuing and re-nesting fledging birds
 - Special Programs – education
 - Assist Structural Maintenance
 - Supply camp grounds with firewood
 - Green waste recycling program
6. How many offices do you require for administrative work?
 - a. How many computers are needed?
 - b. Is paper filing needed? Is long term storage needed?
 - c. Is anything beyond a standard printer or copier needed?

QUESTIONNAIRE
GROUNDS MANAGEMENT FORESTRY CREW STAFF

1. How much time does it take, during each season, from arriving at work to starting first task?
2. Please review the following crew task list. Are the tasks that your crew performs which are not included on the list? If so, please briefly explain.
 - Aerial rescue
 - Tree removal
 - Heavy equipment operation
 - Tree trimming and pruning
 - Tree inventory and GIS data mapping
 - Maintain tree and shrub nursery
 - Tree planting – working with Landscaping Crew
 - Turf restoration
 - River Clearing
 - Rescuing and re-nesting fledging birds
 - Special Programs – education
 - Assist Structural Maintenance
 - Supply camp grounds with firewood
 - Green waste recycling program
3. How many types of uniforms or gear does each crew member use and does one locker per employee suffice? What is the ideal sized locker?
4. Is there a need for separate clean and dirty changing areas?
5. Does this crew utilize showers at the end of shifts?
6. What additional piece of equipment and or tools would make your operations run more smoothly?
7. Where in the county does the crew spend most of its time? Which properties?
8. What would the ideal amount of workshop be? How much bench space per crew member and how many stations?
9. What is your biggest productivity challenge?
10. What, if anything, is negative (undesirable) about your current workspace facilities? What would be the positives?

Biggest Productivity Challenge:

- Congested yard space
 - Limited turning movement and circulation space
 - Keeping tools and equipment organized
 - Mobilization takes from 30mins – 1 hour
 - Parking, storing, and extracting vehicles and equipment
 - Having to move equipment around for accessibility.
 - Outdoor equipment storage
- Negatives:
 - Equipment and materials are difficult to keep clean due to insufficient indoor storage space.
 - Equipment depreciates
 - Limited private conference areas.
 - Lack of indoor storage space
 - General overcrowding in storage areas.
 - Insufficient locker space
 - Insufficient restrooms
 - Separate changing areas
 - No commercial washer or dryer.
 - Building deterioration increases risk of injury to staff.
 - Positives:
 - Centrally located near Fleet Management facility, nursery and fuel island.
 - Near facilities and provides opportunity to connect property in a more efficient manner (i.e. parking entrance).



The following “yearly” financial affects can be realized by replacing the existing Grounds and Natural Resources Campus with a more efficient layout and rectifying the Challenges and Negatives previously outlined. The potential to save time/money in relation to crew costs is estimated as follows:

Summer Activities:	15-20 minutes per person	
	X	54 current Crew Staff
	X	\$39.58 / Hour (\$0.66/minute – includes salary and benefits)
	X	<u>195 Business “Summer” Days/Year</u>
		\$104,247 - \$138,996 / Year
Winter Activities:	30-40 minutes per person	
	X	54 current Crew Staff
	X	\$39.58 / Hour (\$0.66/minute - includes salary and benefits)
	X	<u>65 Business “Winter” Days/Year</u>
		\$ 69,498 - \$92,664 / Year
Total	\$173,745 - \$231,660	Savings per year
	4,390 – 5,853	Manhours Savings per year

Property and Building Assessment

Facility Condition Matrix: 9-component system was used to review each GNR operated structure and site in order to determine the viability for possible re-use.

1. Life Safety
2. Accessibility
3. Structure
4. MEP Systems
5. Fire Protection
6. Utilities
7. Site Circulation
8. Site Access
9. Accessory Storage.

Building Condition Group (6)	Building/Structure	Year Constructed (1)	Square Footage (approx.) (1)	Code Compliance	Accessibility	Building Envelope	Interior Finishes	Life Safety	Functionality	Structural	HVAC	Electrical	Lighting	Plumbing	Fire Protection	Site Utilities	Site Accessibility	Site Circulation	Opinion of Remaining Useful Life ORUL (%) (3)	Opinion of Probable Construction Cost OPCC (4) Renovation	Opinion of Current Value (5)
Blackwell Campus																					
2	Admin. Office Building BW-020	1988	4,556	3	2	4	3	3	3	3	3	3	3	3	N/A	3	4	4	63%	\$609,202.29	\$859,131.43
1	GNR Barn BW-003	1935	1,492	1	1	1	1	1	1	1	1	1	1	1	N/A	2	2	4	27%	\$195,665.14	\$60,745.71
	Equipment Barn BW-003 A&B	1980-84	5,402	1	1	3	2	2	3	3	2	2	2	2	N/A	3	4	4	49%	\$333,257.14	\$262,285.71
	Equipment Barn BW-017 A-D	1980-98	15,946	2	1	2	2	2	2	2	2	2	2	2	N/A	3	3	2	41%	\$1,961,358.00	\$1,156,085.00
2	Vehicle Wash Building BW-003	1999	4,680	4	2	2	3	4	2	4	4	4	4	4	N/A	3	3	3	66%	\$385,097.14	\$615,085.71
3	Fleet Maintenance Building	2018	N/A	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	100%	N/A	N/A
	Fuel Island	2019	N/A	5	5	5	5	5	5	5	5	5	5	5	N/A	5	5	5	100%	N/A	N/A
	Facilities Maintenance Building	1991	18,046	3	3	3	3	3	2	4	4	4	4	4	N/A	4	5	5	73%	\$783,712.00	\$2,629,560.00
	Sign Shop	2003	1,890	4	3	4	4	4	4	4	4	4	4	5	N/A	5	5	5	84%	\$23,760.00	\$159,300.00
Waterfall Glen																					
4	Processing Building WFG-008	1950	1,225	2	1	3	1	3	2	3	2	3	2	2	N/A	2	4	4	49%	\$138,600.00	\$119,000.00
	Office/Storage Building WFG-007	1950	1,225	1	1	3	1	2	2	3	3	3	2	2	N/A	2	4	4	47%	\$142,450.00	\$115,500.00
Greene Valley																					
5	Storage Barn GV-010	N/A	5,460	3	2	3	2	3	4	4	3	3	2	2	N/A	2	4	4	59%	\$838,920.00	\$559,650.00

Ratings (2): Each category is rated on a scale of 1 through 5, 5 being the highest possible rating.
5 - New or in excellent state of condition, 4 - Serviceable and useable state of condition, 3 - Marginal state of condition and usefulness, extensive maintenance required, 2 - At the end of its useful life, 1 - Poor or substand state of condition, replacement recommended

Notes:
1. Building/Structure year of construction and approximate square footage were extracted from documentation obtained from the FPDDC.
2. Ratings indicated are based upon visual inspection of the facilities.
3. The Opinion of Remaining Useful Life is a funtion of the overall rating of the building in the form of a percentage.
4. The Opinion of Probable Construction Cost is based on current values for renovation of the existing buildings.
5. The Opinion of Current Value is a funtion of the OPCC and the percentage of ORUL.
6. Refer to the Property and Building - Summary of Findings.

Grounds and Natural Resource Management Operational Assessment and Logistics Plan Evaluation Presentation

5/24/2022

There are three (3) main components to the evaluation existing buildings:

- 1. Deferred Maintenance (DM)
- 2. Code Compliance (CC)
- 3. Accessibility Compliance (AC)

Evaluations of the Following Properties:

- Blackwell Preserve (Campus & Nursery)
- East Branch (Swift Prairie)
- Waterfall Glen
- Greene Valley
- Churchill Woods
- Ekins Farm
- Danada
- DuPage County Public Works



Property and Building Assessments

VEHICLE AND EQUIPMENT STORAGE: INDOOR VS. OUTDOOR

- Employee Safety
- Cost Savings
- Efficient & Cost-Effective Operations
- Protection of Equipment
- Impacts to Neighbors
- Impacts to the Environment



Analysis of Savings: Storing Vehicles / Equipment Indoors vs. Outdoors

542 existing District Assets (vehicles, trailers, boats) = \$8,000,000

Stored Outdoors = ~\$50 million+

\$16.3 million+ now (construction plus operation and maintenance)
of brand-new buildings (heated and unheated) over 50 years to store these assets indoors.

This represents a savings up to \$30 million

Recommendation

It is also evident after studying the workflow of GNR crews, that there are several tasks that overlap. Multiple sites throughout the FPDDC were visited and evaluated for their optimal usage. It is our recommendation that the Blackwell Campus makes the most logistical sense to keep these groups consolidated.

1. Its centralized location in the County allows for easy access to major thoroughfares.
2. The infrastructure is already in place.
3. Proximity to Fleet Management for maintenance.
4. Proximity to Facilities Building.
5. Opportunity for the creation of a campus with shared resources.
6. Proximity to Fuel Island.
7. Proximity to Nursery.
8. Operations already have an established presence in the area.
9. Blackwell has been identified as one of the most frequented Preserves by the public
10. Provides opportunity for phasing.
11. Ample Acreage to accommodate all current and future needs.
12. Adjacency to support functions.
13. Ability to split functions between East and West Campus to ease site congestion and improve logistics.
14. Improves site appearance.



Recommendation

Recommended Scheme

- 1. Keeps support functions with Crew and Equipment Storage
- 2. Isolates off season storage in unheated facilities.
- 3. Accommodates all current needs and provides for future expansion.
- 4. Reduces through-put congestion.
- 5. Allows for all trailers and equipment to remain attached for overnight secure and protected storage. (Reducing setup and breakdown time)
- 6. Connects East and West campus' keeping logistics traffic off public roads.
- 7. All crews are on the same site.
- 8. Volunteer area is outside secure area.
- 9. Adds queueing space to fuel island.
- 10. Provides heated and unheated storage
- 11. Allows for 18 more spots in enclosed storage for future growth
- 12. Moves off season storage out of the way.
- 13. Sets up for future expansion when needed.



Recommendation

Costs

FPDDC-GNR Scheme A.3										
Plan Tag										
Building/Structure	A		B		C		D		E	
	New Construction - Office, Messing, Locker Rooms & Volunteer Area	Notes:	New Construction - Vehicle/Equipment Storage & Shop Area	Notes:	New Construction - Vehicle/Equipment Storage & Shop Area (unheated)	Notes:	New Construction - Chemical Mixing & Vehicle Wash Area	Notes:	New Construction - Seed Processing & Greenhouse Area	Notes:
Square Footage (approx.)	7,000		92,631		24,924		5,016		1,600	
Sq. Ft. Cost (\$)	\$187.00		\$93.75		\$103.96		\$112.00		\$140.00	
Demolition	N/A (5)		N/A (5)		N/A (5)		N/A (5)		N/A (5)	
Substructure (2)	\$140,000.00		\$1,852,620.00 (6)		\$498,480.00		\$100,320.00		\$32,000.00	
Shell (3)	\$210,000.00		\$3,242,085.00		\$872,340.00		\$150,480.00		\$48,000.00	
Interior (4)	\$455,000.00		\$277,893.00 (12)		N/A		\$15,048.00		\$12,800.00	
Conveying	N/A		N/A		N/A		N/A		N/A	
Plumbing	\$140,000.00		\$463,155.00 (9)		\$39,878.40 (10)		\$50,160.00		\$16,000.00 (11)	
HVAC	\$70,000.00		\$277,893.00		\$37,386.00 (13)		\$30,096.00		\$9,600.00	
Fire Protection	\$28,000.00		\$370,524.00		\$99,696.00		N/A		N/A	
Electrical	\$70,000.00		\$509,470.50 (14)		\$137,082.00 (14)		\$50,160.00		\$16,000.00	
Equipment & Furnishings (15)	\$70,000.00		\$23,157.75		\$6,231.00		\$75,240.00		\$9,600.00	
Special Construction	N/A		N/A		N/A		N/A		N/A	
Sitework	\$126,000.00		\$1,667,358.00		\$900,000.00		\$90,288.00		\$80,000.00 (18)	
Sub-Total	\$1,309,000.00		\$8,684,156.25		\$2,591,093.40		\$561,792.00		\$224,000.00	
Contractors Fees (21%) (20)	\$274,890.00		\$1,823,672.81		\$544,129.61		\$117,976.32		\$47,040.00	
A/E Fees (21)	\$130,900.00		\$434,207.81		\$155,465.60		\$84,268.80		\$33,600.00	
Permit Fees (22)	\$42,765.03		\$283,711.38		\$84,651.02		\$18,353.74		\$7,318.08	
Contingency (15%) (23)	\$196,350.00		\$1,302,623.44		\$388,664.01		\$84,268.80		\$33,600.00	
Opinion of Probable Construction Cost OPCC (19)	\$1,953,905.03		\$12,528,371.70		\$3,764,003.65		\$866,659.66		\$345,558.08	
Summary of the OPCC Based on Scheme										
Scheme	Total		Total		Total		Total		Total	
Totals	\$1,953,905.03		\$12,528,371.70		\$3,764,003.65		\$866,659.66		\$345,558.08	
Scheme A.3 Total OPCC										
\$21,036,980.96										

Summary of Opinion of Probable Construction Cost

A – ADMINISTRATIVE OFFICES & LOCKER ROOMS	\$ 1,953,905
B – GARAGES, EQUIP. STO. & SHOP AREAS (HEATED)	\$ 12,528,372
C – GARAGES (UNHEATED)	\$ 3,764,004
D – VEHICLE WASH & CHEMICAL MIXING	\$ 866,660
E – SEED PROCESSING & GREENHOUSE	\$ 345,558
F –PAVED PARKING AREA FOR STAGING	\$ 479,381
G – GRAVEL PAVING - NOT USED	\$ 0
H – EXISTING CONSTRUCTION DEMOLITION	\$ 372,767
J – UNDERGROUND DETENTION & STORM WATER	\$ 726,335
SCHEME A.3 – TOTAL	\$ 21,036,981

ANNUAL SAVINGS TO BE REALIZED:

•Productivity

•Equipment Longevity

•Operational & Energy Efficiency

•Environmental Benefits

•Public and Staff Safety

\$\$\$ - Limited daily loading and unloading

\$\$ - Moderate covered and heated storage

\$\$ - Heated Equipment as needed

\$\$\$ - Tree preservation, limited contaminants

\$\$\$ - Faster response times

Phasing Opportunity

Grounds and Natural Resource Management Operational Assessment and Logistics Plan Evaluation Presentation

5/24/2022

Phase 1 – To be completed with limited disruption to existing functionality of site.

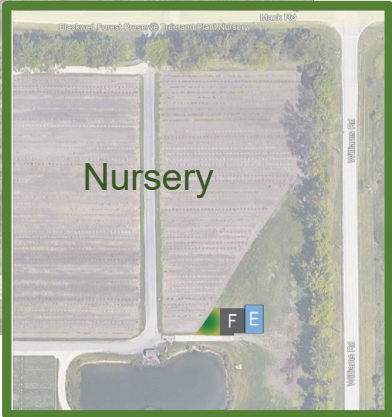
- Removal of Pole Barn and Residence for Construction of Administrative Offices and Locker Rooms. **(A)**
- Construction of Un-Heated Storage and Paved West Campus improvements **(C)** and New Parking Connection. **(F)**
- Construction of Seed Processing and Storage on adjacent site. **(E)**

Phase 2 – Phase 1 construction to support relocation needs during Phase 2.

- All leased trailers to be removed / returned.
- Construction of Heated Storage and Paved East Campus improvements. **(B)**
- Construction of Vehicle Wash and Chemical Mixing. **(D)**
- All Construction Improvements to remain functional. -No Gravel Area **(G)**



Questions



Questions